
DYRICK HILL WIND FARM LIMITED

RESPONSE TO OBSERVATIONS MADE ON DYRICK HILL WIND FARM PLANNING APPLICATION, CO. WATERFORD.

AN BORD PLEANÁLA PLANNING APPLICATION REFERENCE ABP-317265-23

April 2024

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DYRICK HILL WIND FARM
RESPONSE TO SUBMISSIONS RECEIVED

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Appendix A: Invitation to Submit a Response to Observations

1 INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

This submission provides a response to the observations received by An Bord Pleanála (the Board) (Reference **ABP-317265-23**) in relation to the Dyrick Hill Wind Farm planning application (the Development).

The application was made to the Board by Jennings O'Donovan and Partners Limited (JOD) on behalf of their client, Dyrick Hill Wind Farm Limited, for the construction of a wind farm and related works.

Dyrick Hill Wind Farm Limited was a wholly owned subsidiary of EMPower (EMP) at the time of application (2nd June 2023), which was acquired by Statkraft Ireland Limited on 27th January 2024. The Board issued an invitation letter (Dated: 7th May 2024 which is included as Appendix A) to make a submission on the observations received.

Section 1 sets out details of the Development. It includes details of the project team and contributors to the planning application and EIAR.

Section 2 sets out the planning policy context and details of the land zoning of the site.

Section 3 and 4 seek to address the observations raised.

Section 5 concludes why the Development should be granted.

1.2 THE PROPOSAL

Permission is being sought by the Applicant for the construction of 12 no. wind turbines, an onsite substation and all ancillary works and the construction of an underground grid connection to Dungarvan 110 kilovolt (kV) Substation. A full description of the Development is provided in **Chapter 2: Development Description**.

The Development (as described in the public notices) will comprise of the following main components:

- *Erection of 12 no. 6.0-7.2 megawatt (MW)¹ wind turbines with an overall ground tip height of 185m. The candidate wind turbines will have a 162m rotor diameter and a hub height of 104m.*
- *Construction of crane hardstand areas and turbine foundations.*

¹ * This is the current output available for the turbine of this size. It is possible that, with improvements in technology, the output may increase at the time of construction.

- *Construction of new internal site access tracks and upgrade of existing site roads, to include passing bays and all associated drainage.*
- *Construction of a new wind farm site entrance with access onto the R671 regional road in the townlands of Lickoran.*
- *Improvement of existing site entrances with access onto local roads in the townlands of Broemountain.*
- *Improvements and temporary modifications to existing public road infrastructure to facilitate delivery of abnormal loads and turbine delivery.*
- *Construction of one temporary construction compound with associated temporary site offices, parking area and security fencing.*
- *Development of onsite borrow pit.*
- *Installation of one permanent meteorological mast up to a height of 110m.*
- *Development of a Site drainage network.*
- *Construction of one permanent 110kV Substation.*
- *All associated wind farm internal cabling connecting the wind turbines to the onsite substation.*
- *All works associated with the connection of the wind turbines to the national electricity grid, which will be via 110kV underground cable connection approximately 16.1km in length to the existing Dungarvan 110kV Substation.*
- *Upgrade works on the turbine delivery route from Waterford Port.*
- *Ancillary forestry felling to facilitate construction and operation of the Development.*

A 15-year planning permission and 40-year operational life from the date of commissioning of the entire wind farm is being sought.

1.3 THE APPLICATION

The planning application was accompanied by the following reports and drawings:

- 1) Planning cover letter.
- 2) Completed planning application form.
- 3) Details of legal owners and relevant legal interest.
- 4) Newspaper notices.
- 5) Site notices.
- 6) Copies of notification letters sent to prescribed bodies.

-
- 7) Environmental Impact Assessment Report (EIAR) in four volumes:
 - Non-Technical Summary (Volume I).
 - EIAR (Volume II).
 - EIAR figures (Volume III).
 - EIAR appendices (Volume IV).
 - Landscape and visual impact amenity viewpoint photomontage booklets.
 - 8) Natura Impact Statement (NIS).
 - 9) Planning Statement.
 - 10) Copy of the confirmation notice, issued by the Department of Housing, Planning and Local Government, confirming notification to the EIA Portal.
 - 11) Drawing schedule and planning application drawings consistent in size and scale with typical large-scale developments such as a wind farm. The scales of the drawings have been issued to and agreed with An Bord Pleanála.
 - 12) Letter from the Applicant confirming that they will be a Statutory Undertaker for the purpose of the proposed grid connection works. and
 - 13) CD with AutoCAD version of the site boundaries.

2 LEGISLATIVE AND PLANNING POLICY CONTEXT

The Planning Statement submitted with the application sets out the planning policy context relevant to the Development by providing an overview of the international, national and regional legislation and policy of relevance, as well as a detailed review of the planning policy framework within which the application will be assessed. Throughout the Planning Statement, renewable energy is identified as a requirement to play a vital role in mitigating climate change by transitioning to a low carbon economy and society. By investing in renewable energy, Ireland can promote sustainable economic development using its own, secure and clean energy.

All planning applications have to be determined on their individual merits with due consideration given to the overall planning balance of a scheme. While many development proposals will encompass both positive and negative aspects that require consideration, planning weight should air on the side of a 'presumption in favour of development unless material considerations indicate otherwise' as per the paragraph 11 of National Planning Framework "*National Policy Objective 11 In meeting urban development requirements, there will be a presumption in favour of development that can encourage more people and generate more jobs and activity within existing cities, towns and villages, subject to development meeting appropriate planning standards and achieving targeted growth.*". The pressing need to address climate change, the challenges to energy security giving rise to the adoption of Council Regulation (EU) 2022/2577 as amended by Council Regulation (EU) 2024/223, and the presumption of overriding public interest being given to renewable energy projects, makes giving additional renewable energy projects, such as the Development this 'presumption in favour of development unless material considerations indicate otherwise' more important.

2.1 RELEVANT EU POLICY

There have been two critical pieces of European legislation which have a significant impact on how the Competent Authority should have regard to National Climate and Energy Policy in the context of assessing this project pursuant to Section 37G of the Planning & Development Act 2000 (as amended).

Council Regulation 2022/2577 represents an obligation on EU Member States to accelerate renewable energy projects such as the Development as a matter of urgency, the deployment of which is viewed as vitally important to the achievement of the EU's strategic objectives. As per Article 10 of the Regulations, the Regulation is "binding in its entirety and directly applicable in all Member States".

Significantly, the Regulation incorporates and makes clear that renewable energy projects enjoy a **rebuttable presumption** that they are of overriding public interest and serving public health and safety, in particular, for the purposes of the relevant Union environmental legislation, except where there is clear evidence that these projects have major adverse effects on the environment which cannot be mitigated or compensated for.

The Regulation is of critical importance to the Board's decision. Although the Board, retains a discretion, the threshold for refusal of a grant of planning permission is therefore extremely high.

Permission can only be refused if the Board is satisfied that there are significant counter-vailing factors that are sufficient to rebut the presumption.

The Fit for 55 package included a Commission proposal to revise the Renewable Energy Directive (EU) 2018/2001. This proposal was further updated in May 2022 as Part of the REPower EU Plan and subsequently endorsed by EU ambassadors (COREPER) on the 27th September 2023, and came into force in November 2023.

RED II set a binding overall Union target to reach a share of at least 32% of energy from renewable sources in the Union's gross final consumption of energy by 2030. The text that has been adopted by the European Parliament and endorsed by COREPER increases this target to 42.5 %. This target is now captured in RED III.

Additionally, the Directive obliges EU Member States to "collectively endeavour to increase the share of energy from renewable sources in the Union's gross final consumption of energy in 2030 to 45 %".

The associated recital (Recital 5) included in the final agreed text provides useful context:

*"The REPowerEU Plan set out in the Commission communication of 18 May 2022 (the 'REPowerEU Plan') aims to make the Union independent from Russian fossil fuels well before 2030. That communication provides for the front-loading of wind and solar energy, increasing the average deployment rate of such energy as well as for additional renewable energy capacity by 2030 to accommodate the higher production of renewable fuels of non-biological origin..... In that context, it is **appropriate to increase the overall Union renewable energy target to 42,5% in order to significantly accelerate the current pace of deployment of renewable energy, thereby accelerating the phase-out of the Union's dependence on Russian fossil fuels** by increasing the availability of affordable, secure and sustainable energy in the Union. **Beyond that mandatory level, Member States should***

endeavour to collectively achieve an overall Union renewable energy target of 45 % in line with the REPowerEU Plan.” (emphasis added).

This indicates a significant increase in the mandatory targets for renewable energy in the EU, aiming for a more sustainable and independent energy system, with signals of further increasing ambition through the 45% stretch target. This increased ambition for renewable energy at an EU level must be accommodated and addressed in Member State's Climate Action Plans.

RED III also includes specific observations and measures related to the accelerated deployment of renewable energy, storage and grid infrastructure projects across EU Member States these include:

- Specific areas, suitable for developing renewable energy projects, should be designated as 'renewables acceleration areas'.
- The process of designation of these renewables acceleration areas should be streamlined.
- Projects in renewables acceleration areas should benefit from streamlined administrative permit-granting procedures.
- The designation of renewables acceleration areas should not prevent the installation of renewable energy projects in all available areas.

The Directive came into force in November 2023 and Member States have a period of 18 months to implement it. While time for implementation has not expired, this document provides further clear policy support at European level and it is appropriate the Board should have regard to the same. The Directive is highly relevant for three reasons.

- Firstly, it envisages and requires a change in terms of the immediacy and ambition for renewable energy development across the Member States, without which the Union's climate neutrality objective simply cannot be achieved.
- Secondly, it identifies the social and environmental benefits of renewable energy development as noted in Recital 2 *“By reducing those greenhouse gas emissions, renewable energy can also contribute to tackling challenges related to the environment, such as the loss of biodiversity, and to reducing pollution”* and which will help to achieve the aim to “protect, restore and improve the state of the environment by, inter alia, halting and reversing biodiversity loss” while bringing “broad socioeconomic benefits, creating new jobs and fostering local industries”
- Thirdly, and significantly the Directive identifies the imperative necessity for the designation of suitable sites by Member States for the development of renewable energy. While the Directive does not displace the County Development Plan, that imperative strongly supports the submission that the Board can and should grant

permission if it is satisfied that the Development accords with proper planning and sustainable development, notwithstanding the County Development Plan. Quite clearly the Directive has adopted the policy position that local or regional objections to renewable energy development are incompatible with the achievement of climate neutrality by 2050 as local policies are not delivering on the EU objectives with regard to renewable energy.

2.2 OBLIGATIONS UNDER THE CLIMATE ACT 2021 (AS AMENDED); CAP23 AND CAP24

The Development contributes to supplying the national demand for renewable energy which, in the context of the ongoing climate emergency, is an urgent Irish national priority. While renewable energy in Ireland has come a long way, there is still a shortfall in where the nation needs to be to achieve increasing targets. There is a clear national mandate to accommodate significant onshore wind within the next decade with the current Climate Action Plan 2023 (CAP23) and the Draft Climate Action Plan 2024 (CAP24). With respect to the former and the latter, both Plans set a 9 GW target for installed onshore wind energy capacity by 2030, up from 8GW under the CAP 2021.

In May 2022, the installed capacity across Ireland was 4.3 GW, leaving a shortfall of 4.7 GW to be achieved by 2030. The Development, if permitted, includes 72 – 86.4 MW of installed capacity wind energy to provide a clean source of electricity, making it a vital contribution to the transition to a low carbon economy. Section 12.3.1 of the CAP23 includes measures to accelerate renewable energy delivery and identifies “renewable energy generation projects and associated infrastructure are considered to be in the overriding public interest”.

It is also worth mentioning that CAP23 includes a few key actions which are of direct relevance to the Development:

- EL/23/1 in relation to renewable electricity and in particular to onshore wind development – to establish a task force to accelerate renewables
- EL/23/2 Publish the Renewable Electricity Spatial Policy Framework
- EL23/3 to publish a roadmap for the development and implementation of Regional Renewable Electricity Strategies.

Similar to EU policy, national policy is clearly calling for the rapid acceleration in deployment of renewable electricity projects. To put these legally binding targets into context, it has taken Ireland over 20 years to deliver 4.59GW of onshore wind (August 2023). Government is now asking the sector, supported by all relevant national stakeholders (relevant bodies), to nearly double that capacity of onshore wind by 2030. This is a proportionate response to the twin climate and energy security / energy cost crises. The emphasis on urgency and the necessity

to scale up ambition for renewable energy development in the Climate Action Plan is consistent with International and European policy contained in Regulation 2022/2577 and RED III.

CAP24 builds upon the requirements of CAP23 by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings. The Plan provides a roadmap for taking decisive action to halve Ireland's emissions by 2030: "The State shall, so as to reduce the extent of further global warming, pursue and achieve, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy", as committed to in the Climate Action and Low Carbon Development (Amendment) Act 2021.

Section 1.2.1.3 of the CAP24 sets out the scale of the challenge for the electricity sector:

"At a time when the energy system is under severe pressure to ensure security of supply, amid projections of rapid electricity demand growth over the coming decade, the electricity sector has been set one of the smallest carbon budget allocations and the steepest trajectory (-75%) across all sectors. The scale of the challenge to meet the sectoral emissions ceiling is immense and requires policies to be moved from an 'end of decade' target trajectory towards a 'remaining carbon budget' target".

Section 12.3 outlines the projections for the energy sector. The CAP24 clearly outlines the need to accelerate the deployment of renewable energy:

"Given that the programme of large-scale offshore wind deployment is expected to be realised towards end decade, deployment rates for onshore renewables will need to increase to match demand growth to ensure we keep electricity emissions within range of the carbon budgets. This requires a major upscaling and accelerating in current deployment of renewables, particularly onshore wind.

As an example, the historical average deployment of onshore wind installed capacity connected between 2008 and 2020 inclusive was ~280 MW per annum from 19 projects (with an annual maximum of 612 MW). To achieve the necessary emissions abatement, an approximately eight-times increase of renewable energy deployment to 2.3 GW annually would be needed between 2024 and 2030".

Key measures to meet this demand include the following;

- Provide for greater alignment between local plans and renewable energy targets at national (and regional) levels, taking into account regional targets once established and the revised National Planning Framework;
- Publish the Draft Renewable Electricity Spatial Policy Framework White Paper;

- Publish the revised methodology for Local Authorities;
- Following finalisation of a Regional Roadmap, Regional Assemblies will publish and implement Regional Renewable Electricity Strategies, enabling a unified methodology for national and regional spatial and capacity targets, identifying areas suitable for renewable electricity deployment at regional and county levels that can inform the statutory planning process;
- Following adoption of the Regional Renewable Electricity Strategies, Local Authorities will include a statement within their next Local Authority Climate Action Plan which identifies the methods or processes that will be used to implement the required policy supports to achieve renewable electricity targets;
- In line with transposing the revised Renewable Energy Directive, which entered into force in November 2023, ensure that the permit-granting procedure, the planning, construction and operation of renewable energy plants, the connection of such plants to the grid, the related grid itself, and storage assets are presumed as being in the overriding public interest.

In short, CAP24 which updates CAP23 highlights the national obligation to increase the deployment of renewables including onshore wind to meet our legally binding sectoral emissions targets. In this regard, it stresses and makes abundantly clear that the rate of required renewable deployment is unparalleled and must be circa eight times faster in the period 2024 - 2030 than the historical average.

Section 17 of the Climate Action and Low Carbon Development Act (Amendment) 2021 amending section 15 of the 2015 Act requires that:

*“(1) A relevant body **shall**, in so far as practicable, perform its functions in a manner consistent with—*

(a) the most recent approved climate action plan,

(b) the most recent approved national long term climate action strategy,

(c) the most recent approved national adaptation framework and approved sectoral adaptation plans,

(d) the furtherance of the national climate objective, and

(e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.” (emphasis added)

This text amended section 15 of the 2015 Act which required:

15. (1) *A relevant body shall, in the performance of its functions, **have regard to...** (emphasis added).*

The change from a requirement to “have regard to” various national objectives to a standard where relevant bodies must “perform their functions in a manner consistent with” the latest national climate action policies, represents a considerable raising of the legal bar. While the Superior Courts have not, to date, addressed the precise parameters of the obligation to act consistently in the context of the Climate Acts 2015-2021, it is absolutely clear that the Board can only legally make decisions, insofar as is practicable, that are consistent with the Climate Action Plan and the obligation to further the national climate objective. The standard of ‘have regard’ and a requirement of ‘consistency’ are very different standards as set out by Humphreys J in *Cork County Council v Minister for Housing* [2021] IEHC 6836, in particular at para. 86 of the judgment:

In the case of the dispute between the council and central government here, that line has been blurred by the OPR and Minister, albeit for perhaps understandable policy reasons. Nonetheless, the court cannot allow “have regard to” obligations to be elevated by stealth or in effect, directly or indirectly, into what would amount in practice to mandatory obligations, because to do so would undermine a distinction central to the orderly functioning of the planning code.

This is a sea change from the “have regard” to obligation identified by Mr Justice Holland in *Coyne and Another v An Bord Pleanála* [2003] IEHC 412 as imposing an obligation only that the decision maker is aware of the relevant policy but no more – in other words a “have regard to” obligation says nothing at all about the weight of any factor to which regard must be had and is agnostic as to the result to be achieved. An obligation to act consistently does bear on the result which has to be achieved per Mr Justice Holland’s decision at paragraph 19, is engaged by the Board in all of its functions.

Section 17(1) of the Climate Act 2021 outlines that bodies must perform their function in a manner consistent with but only “in so far as practicable”. These words are not a relaxation on the requirement but impose on the Board a mandatory obligation to act consistently as far as is practicably possible. In the context of a planning application before the Board, there are not practicable difficulties or impediments in acting in a manner consistent with such matters in determining a planning application.

Where the Board is weighing up competing policy objectives and or considering this planning application in the context of Section 37G of the Planning and Development Act 2000 (as amended), it must consider this overarching, legally binding, emissions reduction objective, and act in a manner that is consistent with the delivery of this target.

This obligation is, if anything, even more pressing where there is clearly a profound shortfall in the volume of renewable projects required to support compliance with national transition objectives, carbon budget and Sectoral emissions ceilings. It is respectfully submitted that Dyrick Hill Wind Farm, if permitted, will be in a position to make a significant contribution to the meeting of those targets prior to 2030.

2.3 **NATIONAL PLANNING FRAMEWORK**

The two relevant policies for consideration in the National Planning Framework (NFP) are 54 and 55, see sections below.

National Policy Objective 54

“Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emissions reductions.”

- National Policy Objective 54 has been fulfilled by the establishment of national, regional and local policy to facilitate renewables. By demonstrating accordance with these policies, the Development will contribute to the achievement of this national policy objective. In addition, it is noted that CAP24 includes key measures to meet including the following.
 - Provide for greater alignment between local plans and renewable energy targets at national (and regional) levels, considering regional targets once established and the revised National Planning Framework
 - Publish the Draft Renewable Electricity Spatial Policy Framework White Paper.
 - Publish the revised methodology for Local Authorities
 - Following finalisation of a Regional Roadmap, Regional Assemblies will publish and implement Regional Renewable Electricity Strategies, enabling a unified methodology for national and regional spatial and capacity targets, identifying areas suitable for renewable electricity deployment at regional and county levels that can inform the statutory planning process.
 - Following adoption of the Regional Renewable Electricity Strategies, Local Authorities will include a statement within their next Local Authority Climate Action Plan which identifies the methods or processes that will be used to implement the required policy supports to achieve renewable electricity targets.
 - In line with transposing the revised Renewable Energy Directive, which entered into force in November 2023, ensure that the permit-granting procedure, the planning, construction and operation of renewable energy plants, the connection

of such plants to the grid, the related grid itself, and storage assets are presumed as being in the overriding public interest.

National Policy Objective 55

"Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050."

The Development is located in an area designated as 'No-Go' for wind development in the Waterford County Development Plan 2022–2028, the county assessment included consideration of wind resources, avoiding population centres, accessibility to the electrical grid, the value and sensitivity of the surrounding landscape and avoidance of nature conservation sites in particular Natura 2000 sites (SPA and SAC). The Development has also been assessed under each of the topics contained in the EIAR, with adverse residual environmental impacts actively avoided in line with National Policy Objective 55 of the NFP. It is clear from the findings of the EIAR and the NIS that the Proposed Development is located in an appropriate location.

National Energy Security Framework

The National Energy Security Framework (2022) coordinates work on energy security across the oil, gas and electricity sectors and sets out a 'whole-of-government' response to energy security including a key focus on energy affordability.

It provides a single overarching and initial response to address Ireland's energy security needs in the context of the war in Ukraine. It sets out how Ireland is seeking to phase out dependency on Russian gas, oil and coal imports as soon as possible in order to address the urgent need to secure Ireland's energy supply.

It is focused on three areas of work:

- Reducing demand for fossil fuels, which would seek to reduce overall demand for oil, natural gas and coal in Ireland.
- Replacing fossil fuels with renewables, which would seek to reduce the use of gas, oil and coal in Ireland by replacing it with renewable energy sources such as wind energy, solar energy or bioenergy.
- Diversifying fossil fuel supplies, which would seek to replace any Russian supplies of gas, oil and coal (direct or indirect) with supplies from other sources.

The framework highlights the impact of the Russian invasion of Ukraine on energy security, consumer prices in the short term and how and where energy is sourced to ensure long term system resilience. It notes that:

"The war has highlighted key dependencies in our energy system which can no longer be relied on and has led to affordability issues for many consumers and businesses".

The framework builds on the idea of energy security as the uninterrupted availability of energy sources at an affordable price and is a response to the challenges of ensuring the ongoing and long-term security of affordable energy supply.

Ireland has one of the highest rates of importing fuel in Europe with imported dependency increasing to 80% in 2021 according to the SEAI². Energy demand in Ireland has been growing and is expected to continue to increase, especially electricity demand which is expected to grow by 37% to 2031³. The high rate of imported fossil fuel dependency and the increasing demand for electricity make it vital to introduce more domestic renewable energy generation plants, such as the Development, which will provide reliable, secure and affordable energy supplies in Ireland.

The new framework underlines the importance of new renewable energy generation projects and their associated infrastructure, in securing Ireland's energy supply in light of the war in Ukraine and resulting energy supply issues.

2.4 **REGIONAL SPATIAL AND ECONOMIC STRATEGY**

The Regional Spatial and Economic Strategy (RSES) for the Southern Region supports the increased use of renewable energy sources to transition the region to a low carbon, and environmentally sustainable economy. Importantly however, the RSES has not been adopted or amended in the context of the CAP23 and the legally binding obligation to act in a manner consistent with this plan under the Climate Action and Low Carbon Amendment Act 2021. RSES is currently awaiting revisions once the National Planning Framework has been amended and adopted later this year.

² SEAI. (2022). ENERGY IN IRELAND. https://www.seai.ie/data-and-insights/seai-statistics/key-publications/energy-in-ireland/?gclid=EAlaIqobChMI-LH_o6r8_QIV09_tCh23YAykEAAAYASAAEgJipvD_BwE Accessed 11/04/2024

³ EirGrid. (2022). EirGrid's Generation Capacity Statement Predicts Challenging Outlook for Ireland <https://www.eirgridgroup.com/newsroom/eirgrids-generation-capac/#:~:text=The%20GCS%2C%20in%20its%20median,relatively%20consistent%20across%20the%20decade.> Accessed 11/04/2024

2.5 **WATERFORD COUNTY DEVELOPMENT PLAN 2022-2028**

The Development is located within an area mapped as 'Exclusion Zone' within the Waterford County Renewable Energy Strategy (noting that this is in contrast with the previous version of the Waterford County Renewable Energy Strategy which designated the Development Site and surrounding landscape as an area 'Open to Consideration' for wind energy development). The current Strategy has resulted in an overall decrease in area for potential wind energy developments within the County. The Wind Energy Map that forms part of the CDP, that effectively sterilises Waterford for the purposes of Wind Energy, is not compatible with Article 3 of Regulation 2022/2557 or the RED III. In particular, the presumption that such developments are in the over-riding public interest and must be accorded priority is completely incompatible with the purported sterilisation of the County.

2.6 **TIPPERARY COUNTY DEVELOPMENT PLAN 2022-2028**

The entirety of the Development is contained in Waterford County. However, it sits immediately adjacent to the County Tipperary Border.

The Tipperary County Development Plan 2022 – 2028 (TCDP) was adopted on 22nd August 2022. The plan recognises the critical importance of energy production and distribution to the continued development and expansion of employment in the county.

Of particular relevance to the Development is Policy TCDP 15-F:

"Work in partnership with the Department of the Environment, Climate and Communications in line with their 'Policy Statement to Ensure Security of Electricity Supply and Facilitate the Target of up to 80% Renewable Electricity Generation by 2030', and to facilitate additional electricity transmission and distribution grid infrastructure, as well as additional electricity interconnection and electricity storage."

A landscape review has been included as part of the TCDP. Within this, the landscape is classified by landscape types and landscape character areas. The parts of County Tipperary located within the study area are predominantly contained within the landscape 'D1 – Mountain & Upland'. The nearest and most relevant landscape character areas are '23 - Knockmealdown Mountain Mosaic'. The landscape sensitivities range from 'transitional sensitivity' to 'vulnerable'.

In the central study area, there are three Co. Tipperary scenic views, none of which traverses the Wind Farm Site:

- View 17: Views south along Ardfinnan - Clogheen road (R665)
- View 37: Views South over River Suir Valley from Marlfield - Knocklofty Road

- View 38: View on the Cahir approach road to Clonmel looking southeast to lands north of Marlfield and west of the town.

Wind Energy Strategy:

In the Wind Energy Strategy of the recently adopted TCDP, areas in the closest portion of County Tipperary to the site that had previously not been subject to a specific wind deployment zone have now been designated as 'An area unsuitable for wind energy development'.

With respect to *Chapter 9 Tourism* of the TCDP, it is noted that the Applicant did not discuss Tipperary policies in relation to tourism in the submitted EIAR and Planning Statement. The Applicant would gratefully submit Further Information on this point if the Board requests same.

2.7 LOCAL AUTHORITY RENEWABLE ENERGY STRATEGY (LARES)

The Waterford City and County Council Renewable Energy Strategy 2016-2030 is included as Appendix 7 of the Waterford County Development Plan 2022-2028.

The SEAI 'Methodology for Local Authority Renewable Energy Strategies'⁴ states that

*"A LARES needs to be developed within the local, regional, national and European policy context. **This initial step is vital** to make sure that a concrete set of assumptions is developed for the strategy and to ensure the validity of the strategy in the context of national and European obligations" (Emphasis added).*

The Waterford City and County Council Renewable Energy Strategy has not been updated since its preparation as part of the Waterford City Development Plan 2012-2018 / Waterford County Development Plan 2011-2017. The strategy is premised on 2020 renewable targets and is clearly outdated in terms of current renewable energy policy. The Climate Change Advisory Council's Working Paper No. 16 which provides a review of LARES notes that, while Waterford has committed a MW target for renewable energy, it is not up to date with the Climate Action Plan with the renewable electricity target of 35% being significantly below the national objective of 80%. It is evident that the Waterford City and County Council LARES is not appropriate in the context of current regional, national and European renewable energy and climate resilience policy.

⁴ SEAI (2013) 'Methodology for Local Authority Renewable Energy Strategies'

Further, while the Waterford City and County Council LARES identifies constraints and environmental considerations for wind energy development within the county (which focusses on landscape, heritage and protected areas) it does not include an assessment of the renewable energy resources and potential in the local authority area other than to consider wind speed. As such the LARES assesses the theoretical resource only and does not consider the accessible resource following consideration of appropriate setback margins from infrastructure e.g., roads, from residential and commercial properties, from watercourses, from protected areas etc. Therefore, the LARES does not fully align to the SEAI 2013 methodology.

The Tipperary Council Renewable Energy Strategy 2022-2028 is included as Appendix 2 of the Tipperary County Development Plan 2022-2028. The strategy is premised on 2020 renewable targets and is clearly outdated in terms of current renewable energy policy. The Climate Change Advisory Council's Working Paper No. 16 identified that the Tipperary Council Renewable Energy Strategy 2022-2028 reused an old RES from 2016 that has wind map and current developments. OPR recommendation 11 required evidence-based MW targets, and removal of 1km setback from settlements. However, no amendments were made. It is evident that the Tipperary Council LARES is not appropriate in the context of current regional, national and European renewable energy and climate resilience policy.

3 RESPONSE TO STATUTORY BODY SUBMISSIONS AND OBSERVATIONS

3.1 DEVELOPMENT APPLICATIONS UNIT (DAU)

DAU Observation Item 1:

Nature Conservation

The Department has no comment to make in relation to proposed turbines 1 - 6 and associated infrastructure. The Department does have significant concerns in relation to proposed turbines 8-13 and associated infrastructure located on Broemountain. These are located on upland habitats in largely undisturbed areas which contain habitats of conservation interest and provide habitat to species of high conservation concern. Turbines 8-13 and linked infrastructure would in our view adversely impact these interests.

Broemountain is the eastern extent of the larger upland habitat area of the Knockmealdown mountain range. It is not designated as a conservation area but contains significant expanses of Dry Heath which is listed in Annex I (4030) of the Habitats Directive and is assessed in the Environmental Impact Assessment Report (EIAR) as of national importance (Table 6.11). The overall national status of this habitat for the purpose of Article 17 reporting to the European Commission is currently assessed as "Bad". The footprint of the development would directly remove 3.5ha of this habitat with additional removal of associated linked habitats. The EIAR assesses the loss of this Annex I habitat as a significant, permanent negative impact at the local scale with potential to result in impacts at the national/international scale. Proposed mitigation does include the restoration of a greater area of dry heath and acid grassland but changes in management could also achieve this without the permanent removal of existing quality habitat. The presence of other notable related or supporting habitats such as species rich Nardus acid grassland, which while not in this case Annex I, has close links to the Annex I classification, further indicates as area of ecological value.

Apart from specific annexed habitats the elevated open exposed nature of Broemountain provides a mosaic of upland habitats and species which are nationally declining, it forms a significant block of habitat on the eastern extent of the larger Knockmealdown area which is important for a range of open country species. Scale is important in conserving these species and it is important that they can range over large undisturbed areas and alternate between pieces of habitat which for various reasons (e.g. burning, forestry works etc.) may become temporarily unsuitable but will at a later stage be used again.

The area provides habitat for and supports species listed on Annex I of the Birds Directive (79/409/EEC as amended) such as hen harrier, golden plover and merlin. Other bird species present include species listed as of high (Red-list) conservation concern such as meadow pipit, kestrel and snipe in addition to birds of medium conservation concern (Amber-list) such as skylark. Previously extinct Annex I species re-introduced to Ireland such as white-tailed eagle and red kite have been recorded in the area and it is likely given the nature and location of this upland habitat, they would make future periodic use of the area. This Department believes the development would remove or degrade potential habitat for these species. The Southern Regional Assembly Regional Spatial & Economic Strategy (RSES) lists Regional Policy Objectives (RPOs) for this region and RPO1 states "Any reference to support for all plans, projects, activities and development in the RSES should be considered to refer to 'environmentally sustainable development' that has no adverse effects on the integrity of European sites and no net loss of biodiversity". The proposed project would in our view, cause a net loss of biodiversity.

Development Applications Unit Observation Response 1:

RE: Proposed mitigation does include the restoration of greater area of dry heath and acid grassland but changes in management could also achieve this without the permanent removal of existing quality habitat.

It is accepted that changes in management could achieve the restoration of dry heath and acid grassland at the Broemountain area of the Proposed Development, however, as noted in the Habitat Management Plan (HMP) prepared for the Proposed Development, the lands currently included in the c. 20Ha of this HMP are not currently managed under any nature conservation schemes, and thus there are no restrictions to land management practises, which as demonstrated in both the HMP and the EIAR Biodiversity Chapter, have undermined the extent and condition of dry heath habitat in the recent past.

Following discussions with current landowners associated with the Proposed Development, habitat management proposals for the Proposed Development have not been brought to their attention and will not be actioned in the absence of the Proposed Development, consequently, the proposed habitat management measures associated with the Proposed Development currently represent the best opportunity to manage these lands for future habitat restoration and enhancement.

RE: Further indicates an area of ecological value....cause a net loss of biodiversity

It is accepted that the Broemountain area of the site currently support habitats of ecological value. The impact of the Proposed Development to these habitats is set out in the EIAR and measures have been proposed to minimise and offset/compensate for these impacts. It is

concluded in the Biodiversity Chapter of the EIAR that, the Proposed Development and the successful implementation of the habitat management proposals will have the potential to contribute towards an overall net gain in the area of high value habitats occurring within the Proposed Development site. Furthermore, as set out in the HMP, the habitat enhancement measures and actions prescribed in the HMP are based on techniques that have been proven to be effective at restoring and enhancing habitats.

Notwithstanding the HMP included as part of the Proposed Development, please note the following:

Obligations in relation to Annex I Habitats

Annex I of Directive 92/43/EEC, the Habitats Directive, identifies certain habitats, referred to as Annex I habitats, which are considered to be in need of conservation due to their naturalness or rarity. Article 3 of the Habitats Directive sets out the nature of the protection to be afforded to Annex I habitats and establishes a regime for their protection which involves the identification and designation of Special Areas of Conservation (SACs). In accordance with Article 3(2) of the Directive, these SACs are to be designated "*in proportion to the representation within its territory of the natural habitat types*". Article 6(1) of the Habitats Directive provides that "**for special areas of conservation, Member States shall establish the necessary conservation measures.**" Article 6(2) of the Habitats Directive requires that "*Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive*" (emphasis added).

Article 6(3) of the Habitats Directive further provides that "*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.*"

In Conclusion, Protection under the Habitats Directive is therefore only applicable to Annex I habitats which have been designated as an SAC. The development will not adversely affect the integrity of any SAC.

DAU Observation Item 2:

The Department considers the open area on Broemountain to be good quality habitat for hen harriers, as was indicated by their repeated breeding there up until 2019 and producing 4/5 chicks annually (Allan Mee, pers, com.). Some small habitat change has taken place in recent years but should be seen in context with other adjoining upland areas and remains entirely suitable foraging and nesting habitat. Such changes are very minor compared to the Development and are likely temporary as agricultural regulation application and incentives change. As evidenced by the 2015 National Hen Harrier Surveys, the Broemountain area makes up the eastern extant of a larger unit of important hen harrier habitat where in 2015 five breeding harrier pairs nested. Five pairs constituted between 3.2 and 4.8% of the national population of the Annex I bird species. The survey also indicated the national population had declined by 8.7% since the last survey in 2010. This area was not selected as a Special Protection Area but to provide context of the value of this site, criteria used for SPA designation included if used regularly by 1% or more of the all-Ireland population of a species listed in Annex 1 of the Birds Directive in any season. the Knockmealdown area significantly exceeds this threshold. Article 4(4) of the European Birds Directive specifies that Member states shall strive to avoid pollution or deterioration of habitats and in case C-374/98a the European Court of Justice held (paragraph 47) that "it is clear, therefore, that areas which have not been classified as SPAs but should have been so classed continue to fall under the regime governed by the first sentence of Article 4(4) of the Birds Directive" .

The 2015 national survey noted that "Three of the five confirmed pairs in the Knockmealdowns are in heather moorland which is perhaps more extensive and of higher quality here than elsewhere in Munster. Use of heather moorland sites is likely to be more stable over time than afforested sites", one of these sites was within the Broemountain Development area. It is acknowledged the EIAR for this project did not find birds nesting at that location, but we believe they were present up to 2019 (Alan Mee, pers, com) and if the habitat remains suitable, as we believe it is, could nest there again.

In relation to the EIAR and Hen Harrier, we note the Hinterland Surveys (Ornithology p44) recorded two sightings of harriers carrying prey. This is strongly indicative of an active nest as they do not generally carry prey other than to visit active nests. The assessment does not elaborate on or has failed to see the significance of these sightings. Neither does there appear to have been any follow up to these significant sightings to establish where these hinterland nests might be located. The EIAR states (Table 7.22) "No birds were recorded on site, although it is important to note that nesting has occurred historically', however, there is no discussion of the 2015 National Hen Harrier Survey which documented that the

Knockmealdowns held five confirmed breeding pairs of hen harrier, one of which was within the Development site, one within 0.5km and one within 3km. The Department does not accept the EIAR assessment (Table 7.22) that harrier habitat on the site is highly degraded and 'deemed unlikely to be suitable for breeding' or that it is sub-optimal for foraging, nor does the Department accept conclusions drawn that only 11.17ha of suitable habitat will be lost through the development. The EIAR has not mentioned or included in its evaluation the importance of nearby young pre-thicket forestry plantation which is also suitable breeding and foraging habitat supporting the adjoining open habitat. We are aware that hen harrier nested in young forestry at the Broemountain site in 2016 and a nearby site (0.5km) in 2019 and both pairs regularly foraged over pre-thicket forestry as well as heather moorland and grass moorland at the site (A. Mee pers. obs.).

Appendix 7.1 of the Ornithology report provides total duration of vantage point watches but no start or end times. This is important information in evaluating potential breeding. Table 2.5 provides details of breeding bird transects carried out using CBS based methods, CBS methods specify early visits should take place between 1st April and mid-May and late visits between mid-May and the end of June. However, table 2.5 documents that first CBS visits in 2020 were not carried out until 31-05-20 with late visits not carried out until 28-08-20, which is well outside acceptable survey dates for passerines, raptors or breeding waders and not likely to accurately reflect the breeding bird community, in addition only one of two transects was covered in the later visit. In 2021, early visits were not until 26-05-21 (with only two of three transects carried out) and late visits were on 29-06-21 (with only one of three transects carried out) and on 31-07-21, the latter date again well outside prescribed dates for surveying breeding birds and not acceptable under CBS methodology. In 2022 all transects were covered within the prescribed period, but this provides only one season of data which is not sufficient for a project of this scale.

Apart from collision risk (predicted at 6.21 strikes/annum for golden plover, 2.72 for kestrel) and direct removal of habitat for infrastructure, it is generally accepted that wind turbines and associated infrastructure will cause displacement of certain species on adjoining habitat including hen harrier and golden plover but also other Red-list birds of conservation concern such as snipe and to a lesser extent Meadow pipit. While the extent of habitat displacement may be debated and varies between species, for hen harrier 2-300 metres is likely with reduced usages up to 500m. In the Broemountain area the suitable harrier and golden plover habitat occurs in a long narrow band varying in width around 400m. Due to the proposed turbine layout, if the development goes ahead we believe this entire band of habitat is likely to become unsuitable for hen harriers and golden plover, or at best be severely compromised. In addition to displacement from windfarm infrastructure, further sources of displacement will

be associated human activity in this currently largely undisturbed area. Human related disturbance distance for hen harrier are considered to be 300-750m and for golden plover 200-500m with the upper limit of the disturbance buffer recommended for use. The EIAR acknowledges (Ornithology p93) "the placement of turbines in the commonage area poses a significant risk of displacing Annex-1 protected golden plover" and further notes this habitat is becoming increasingly at risk and "There are several other projects which have either been consented or are proposed which also impose a risk to this habitat, thus further implicating the consequences". Therefore, if the project as currently indicated proceeds, it is likely the area of currently suitable harrier and golden plover habitat at Broemountain will become unusable and this eastern portion of the greater Knockmealdown habitat complex will be lost. This impact will be further increased if proposals for the Knocknanask area (Scarf Mountain Wind Farm) also proceed.

Various conclusions (Percival evaluations) in the EIAR of the predicted impact of the development are subdivided into direct loss, collision risk and indirect loss rather than one assessment reflecting the eventual overall combined impact of the development and it appears the calculations of indirect loss do not accept a significant avoidance zone around turbines therefore in our view these significantly underestimate the zone of influence and the overall likely impact of the proposed Broemountain development.

The application cannot be seen on its own, there is in preparation another windfarm development proposal on land which is directly adjoining this site and which also, as currently indicated, proposes further development on upland open habitats. The current proposal must be seen in combination with that proposal and the in-combination effects considered, Bird usage data collected in preparation for this other proposed adjoining windfarm will be available and will further inform this application. Birds and habitats clearly overlap the two sites and the two sites together form part of a larger ecological unit, An overall ecological assessment needs to be considered to avoid long-term very significant and cumulative effects."

DAU Observation Response 2:

Hinterland Surveys (2020, 2021, and 2022)

The hinterland surveys were carried out in suitable habitats including peatlands, woodlands and wetlands in the area surrounding the Proposed Development. This comprised of 12 hinterland vantage points within 10km from the Site. These hinterland vantage points (HVP) were chosen as they overlooked suitable habitat for the following target species: raptors, waders, waterfowl, swans, geese, barn owl, wildfowl and other waterbirds. Surveys were

carried out between May 2020 and September 2022. All reports / surveys referenced in this document) were all referenced within the original planning application and are not new reports / surveys constituting. The HVPs detailed in Table 2.2, Chapter 7, Volume 2 and Figure 7.3 Appendix 7.4, Volume 3 of the EIAR Figure 3 were checked regularly across this period.

The results of the previous national surveys (1998-2000, 2005, 2010 and 2015) and the current 2022 national survey of breeding hen harrier in Ireland were reviewed to inform the hinterland survey for the proposed Dyrick Hill Wind Farm. The hinterland sites included 7 separate HVP sites in the Knockmealdown area (HVPs 1, 2, 3, 4, 6, 7 and 8) which provides significant coverage of suitable habitats including peatlands and conifer plantation to the southwest, west and north of Broemountain.

The hinterland survey for raptors was conducted in accordance with Hardey et al. (2013) to assess hen harrier and other raptor activity over the winter and breeding periods in the greater surroundings of the Site. The survey area extended well beyond the recommended 2km buffering area for raptors set out in the SNH (2017) *Recommended bird survey methods to inform impact assessment of onshore wind farms* with HVP2 located >3.5km from the nearest turbine.

Over the more than two years of monthly hinterland surveys there were a total of six sightings of hen harrier. The sightings were recorded on four dates between 17th October 2021 and 8th May 2022, all involving sightings of single hen harrier, four of which were seen hunting and two of which were seen carrying prey. All sightings, bar one, were of adult males.

The two sightings of a male hen harrier carrying prey were both recorded on the 8th May 2022 from HVP6. The sightings occurred within an hour of each other and are considered to be the same individual on both occasions. The first sighting was made at 17:02, lasting for 70 seconds, with a flight height of between 20-30m heading in a north-northwest direction away from the HVP. The second occurred at 17:52 a male HH carrying prey which flew off in a northerly direction over Knocknasculloge. The significance of these sightings in term of potential nesting behaviour was noted at the time of the surveys and HVP surveys were undertaken monthly from June to September at these HVPs to assess potential nesting activity in this area but yielded no further observations of hen harrier. The timing and details of hinterland surveys are provided in Appendix 7.3 Volume of the EIAR.

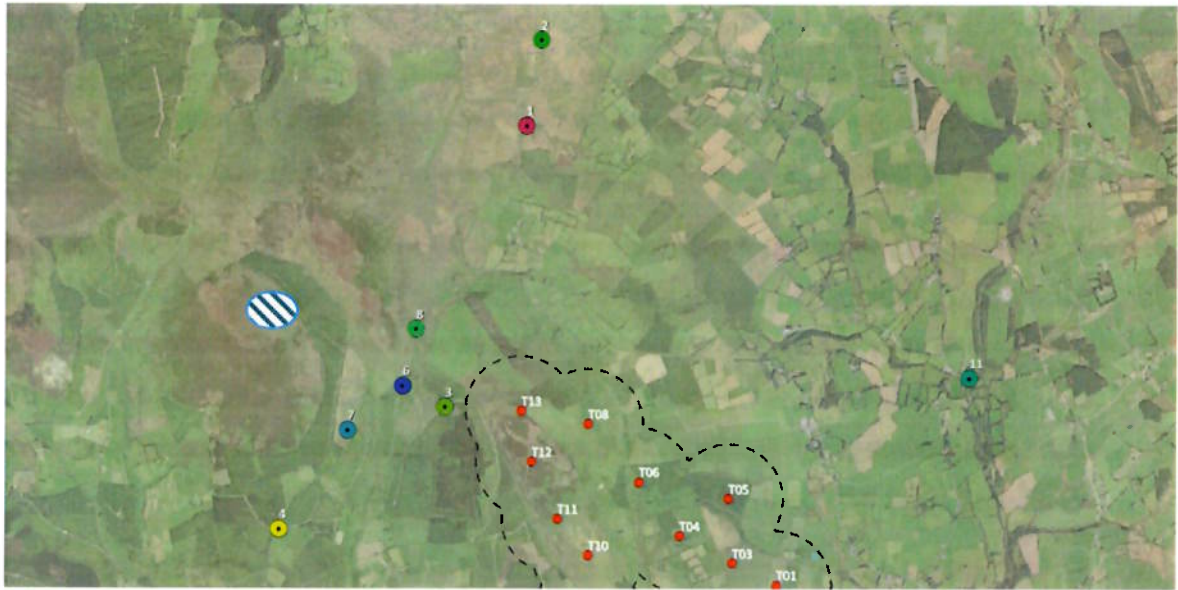


Figure 1: Male hen harrier carrying prey 8th May 2022 (17:02). HVPs location provided to show coverage of the area (shown in hatching) during hinterland surveys.

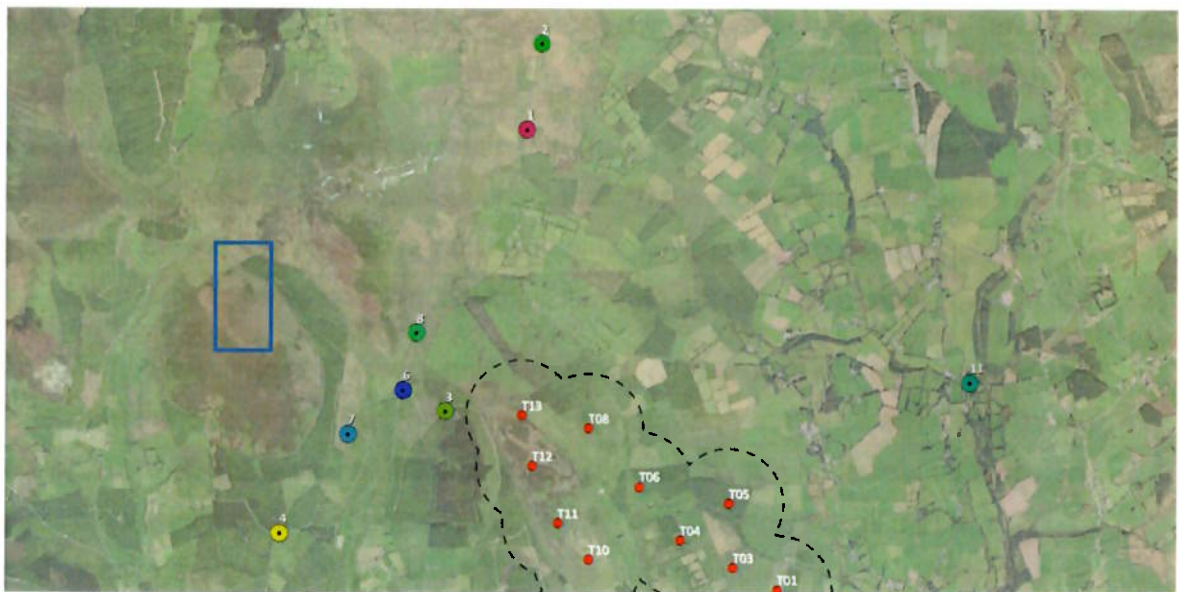


Figure 2: Male hen harrier carrying prey 8th May 2022 (17:52).

Hen Harrier activity within the 500m (SNH, 2017) buffer from proposed wind turbines

Chapter 7 of the EIAR provides an assessment of the significance of the effects of displacement and habitat loss as caused by the Proposed Development on birds. The assessment is premised on the findings of ornithological surveys which were conducted between the April 2020 to September 2022 and were based upon the recommended guidance in *'Recommended bird survey methods to inform impact assessment of onshore wind farms'* Scottish Natural Heritage (SNH), 2017 (noting that ornithological surveys at the Proposed Development Site are ongoing).

The Site was covered by three vantage point (VP) survey locations. VP surveys were carried out at the site monthly from April 2020 to September 2022 inclusive. The summer season was defined as running from April to September inclusive (six months) for 2020, 2021 and 2022, and the winter season from October to March inclusive (six months) for 2020/21 and 2021/22. Therefore, over the entire survey period, three summer surveys and two winter surveys were completed. In addition, a round of autumn migration surveys was conducted in September and October of 2021. It is of note that the duration of the surveys carried out for the Proposed Development exceeds the recommended two-year period prescribed in the SNH guidelines and as such provides a very robust picture of bird activity in the area. The SNH guidelines requires 36 hours per VP for each summer and winter season over the two years, amounting to 432 hours of survey time over 3 VPs. The total survey effort over the 2.5-year survey period (3 x summer seasons, 2 x winter seasons and one migration period) was 535 hours and 10 minutes or 1,926,600 seconds.

Hen Harrier were recorded on three occasions over the three full breeding seasons completed (Summer 2020, 2021, and 2022), with two sightings from VP1 (22nd September 2020, and 16th September 2022), and an additional sighting from VP2 on the 25th July 2022. A total of 900 seconds of flight time was recorded, of which the majority (503 seconds) was below the rotor sweep zone (23m-185m). However, 397 seconds was spent in the 20-30m rotor swept height band. The sighting on the 25th of July 2022 was the only sighting over the 3 years of full breeding bird surveys to fall within the recognised April to the end of August breeding period for hen harrier.

Hen harrier were recorded on four occasions over the two full winter seasons completed (winter 2020/21 and 2021/22) between the 21st September 2021 and the 8th March 2022, with two sightings from VP1 and two from VP2. A total of 349 seconds (all four records) of flight time was logged, of which 326 seconds (three records) occurred within the flight activity survey area. Of this 326 seconds, 235 occurred within the rotor sweep zone. Two of the four records involved hunting birds, with the other two seen flying/commuting.

Overall, levels of hen harrier activity recorded during VP surveys, were not considered high, especially in the context of the numbers of sightings of the species relative to the length of time over which VP surveys were undertaken (comprising 2.5 consecutive years).

The potential effects on hen harrier during the construction, operational and decommissioning phases of the Proposed Development are detailed in section 7.5 Chapter 7 Volume 2 of the EIAR. The assessment of the significance of effects on avifauna as presented in Chapter 7 of the EIAR has been carried out following best practice published guidance: Percival, S. M., (2003) 'Birds and wind farms in Ireland: a review of potential issues and impact assessment' Report to S.E.I.

In terms of the effects of direct habitat loss, the EIAR, in Chapter 7, Table 7.22 identifies that the overall significance of the effects of loss of breeding and/or foraging habitat will be a Long-term Slight to Moderate Effect for hen harrier based on a lack of breeding on site as well as low number of sightings (seven in total).

Table 7.23 identifies that the overall significance of disturbance and/or displacement during construction will be a Short-term Slight Effect.

The potential collision risk to hen harrier detailed in Chapter 7, Table 7.24 is assessed as being a Long-term Imperceptible Effect with a predicted number of collisions (assuming avoidance) of 0.02 per year.

Disturbance and barrier effect outlined in Table 7.25 Long-term Not Significant to Slight Effect in for both.

Potential cumulative effects are set out in section 7.5.4 Chapter 7 Volume 2 of the EIAR, the assessment considered the potential for cumulative effects with six other wind farms including the proposed 11-turbine Coumnagappul Wind Farm situated 7.1km east of the Proposed Development.

Hen harrier was recorded during both summer and winter season vantage point surveys, on a total of 17 occasions at Coumnagappul Wind Farm. There were 12 sightings of hen harrier across the four consecutive summer bird survey seasons (2019 – 2022, inclusive). Of these, 9 sightings occurred during the hen harrier breeding season (April to August, inclusive as per SNH, 2017) and were recorded across summer 2019, summer 2021 and summer 2022. Winter sightings of hen harrier were infrequent across the three consecutive winter seasons surveyed. There were no sightings of hen harrier in winter 2019/20 and a total of five sightings across the winter 2020/21 and 2021/22 seasons combined. A total of 130 seconds of hen harrier flight time occurred within the flight activity survey area in the rotor sweep zone during the 1,080 hours of vantage point surveys carried out between 2019 and 2022. This equates to hen harrier activity within the rotor swept zone for only 0.0033% of the 3.5-year survey period.

The potential effects for Coumnagappul on hen harrier were as follows:

- Loss of breeding and/or foraging habitat will be a Long-term Slight to Moderate Effect based on a lack of breeding on site as well as low number of sightings.
- Disturbance and/or displacement will be a Short-term Slight Negative Effect.
- The proposed impact of collision risk will be a Long-term Imperceptible Effect with a predicted number of collisions (assuming avoidance) of 0.002 per year.

- Disturbance and barrier effect during operation were assessed as being a Long-term Not Significant to Slight Effect.

Based on the evidence available, in addition to the fact that there is a significant distance to many of these wind farms (which includes the proposed Dyrick Hill Wind Farm), the lack of migration paths during survey, along with the results of hinterland surveys undertaken for the Proposed Cumnagappul wind farm, any cumulative effects on hen harrier during the construction phase would be a Long-Term Imperceptible Cumulative Effect.

Considering the distances of the Cumnagappul wind farm site in relation to the Proposed Development study area, the lack of migration paths during surveys, along with the results of hinterland surveys undertaken for the Proposed Development, the cumulative collision risk on any hen harrier is considered negligible. Furthermore, studies have found that local wintering birds will habituate to the presence of turbines and therefore avoid collision (Langston & Pullan, 2004). Cumulative collision mortality combined with other wind farm developments is predicted to be a Long-Term Imperceptible Cumulative Effect.

The potential cumulative effects during construction and decommissioning are considered to be the same as those described for the construction phase of the Proposed Development.

Golden Plover Response

The effects of infrastructure such as wind farms on birds are highly variable and depend on a wide range of factors including the specification of the development, the topography of the surrounding land, the habitat affected and the numbers and species of birds present (Drewitt, A., and Langston, R., 2006⁵). Developments such as wind farms in general have many effects on birds, including potential direct habitat loss and fragmentation, displacement due to disturbance, death, and injury due to collisions and disruption of local or migratory movements, with a consequent increase in energy expenditure (Drewitt, A., and Langston, R., 2008⁶). However, the principal concerns in terms of adverse effects on birds are (1) disturbance/displacement, (2) collision, (3) habitat loss/change and (4) barriers to movement (Langston, R., 2010⁷).

The potential effects on golden plover during the construction, operational and decommissioning phases of the proposed wind farm are detailed in section 7.5 Chapter 7

⁵ Drewitt, A. L. and Langston, R. H. (2006). Assessing the impacts of wind farms on birds. *Ibis*, Vol. 148, pp. 29-42.

⁶ Drewitt, A. L. and Langston, R.H. (2008). Collision Effects of Wind-power Generators and Other Obstacles on Birds. 1134, *Annals of the New York Academy of Sciences*, pp. 233-266.

⁷ Langston, R.H.W. (2010). Birds and wind farms: where next? BOU Proceedings – Climate Change and Birds.
<http://www.bou.org.uk/bouproc-net/ccb/langston.pdf>

Volume 2 of the EIAR. The assessment of the significance of effects on avifauna as presented in Chapter 7 of the EIAR has been carried out following best practice published guidance: Percival, S. M., (2003) 'Birds and wind farms in Ireland: a review of potential issues and impact assessment' Report to S.E.I.

In terms of the effects of direct habitat loss, the EIAR, in Chapter 7, Table 7.22 identifies that the core foraging and roosting area for the species located at Broemountain is indicated in Volume 3 Figure 7.73. Looking at a worst-case scenario, there will be a loss of 16.45Ha of suitable habitat (directly and indirectly via disturbance). The overall significance of the loss of wintering and/or foraging habitat will be a Long-term Moderate Effect locally and a Long-term Slight Effect at a county level.

Table 7.23 identifies that the overall significance of disturbance and/or displacement during construction will be a Short-term Significant Effect at a local level if works were to be carried out within the commonage area during the winter period. Outside of the area and period it will result in a Short-term Imperceptible Effect.

The population-level consequences of predicted collision risks were assessed in the Collision Risk Model (CRM) Appendix 7.2, of the EIAR. The CRM considers the additional mortality that would be caused (assuming that the collision risk is non-additive) relative to the population at a national and county level. The impacts at a local population for golden plover were considered based on the populations of the species within the Dungarvan Harbour SPA. While additional local populations of golden plover are present outside and independent to the SPA population, assessing the predicted mortality rate based solely on the populations within this one SPA provides a conservative assessment of the potential effects that may arise from the proposed wind farm. The potential increase in annual mortality rates for golden plover, is shown in Table 7.1 of the CRM Report. The potential collision risk to golden plover detailed in Chapter 7, Table 7.24 is assessed as being a Long-term Slight Effect with a predicted number of collisions (assuming avoidance) of 6.21 per year (0.12% of the local population and 0.008 % of the national population).

Indirect disturbance to golden plover due to habitat displacement during the operational phase of the Proposed Development is assessed in Table 7.25. The resultant operational phase of the wind farm may cause disturbance to foraging/roosting habitat at Broemountain. It is acknowledged in the chapter that differences in densities pre- and post-construction of wind farms is significant (Pearce-Higgins et al., 2012⁸). Displacement may occur up to 400

⁸ Pearce-Higgins, J.W., Stephen, L., Douse, A., Langston, R.H.W. (2012). Greater Impacts of wind farms on bird populations during construction than subsequent operation: results of a multi-site and multi-species analysis. *Journal of Applied Ecology*, Vol. 49, pp. 386-394.

m (Sansom et al. 2016⁹). The loss of wintering and/or foraging habitat was identified as being a Long-term Moderate Effect Locally and a Long-term Slight Effect at a county level.

Barrier effect is also considered in Table 7.25, the significance of effects to migrating birds in terms of energy expenditure is assessed and the daily barrier effect for movement. The overall significance was identified as being a Long-term Moderate Effect.

Potential cumulative effects are set out in section 7.5.4 Chapter 7 Volume 2 of the EIAR. The assessment considered the potential for cumulative effects with six other wind farms including the proposed 11-turbine Coumnagappul Wind Farm situated 7.1km east of Dyrick Hill Wind Farm. The potential cumulative effects on birds during the construction and decommissioning phase is considered to be a Long-Term Imperceptible Cumulative Effect. During the operational phase of the Proposed Development, it is predicted to be a Long-Term Slight Cumulative Effect to golden plover. However, this is considered to be a highly conservative assessment as despite adding the cumulative impacts in terms of predicted annual risk from the wind farms considered, both national and local loss rates remain as negligible, with the predicted fatality of 0.008% of the national population remaining unchanged and 0.12% increasing to 0.15% for the local population.

Overall, the Proposed Development is predicted to have a Long-term Moderate Effect Locally and a Long-term Slight Effect at a county level for golden plover. This predicted effect relates to habitat loss during the operational phase of the Proposed Development.

DAU Observation Item 3:

Archaeology

It is noted that the EIAR submitted as part of the planning application includes a desk-based Archaeological Impact Assessment (AIA) which was carried out in relation to the Development by John Cronin & Associates (EIAR Chapter 13, date May 2023). NMS has reviewed the EIAR and is broadly in agreement with the findings in relation to Archaeology and Cultural Heritage as set out therein.

However, issues of particular concern remain unresolved in relation to:

- 1) indirect Impacts to the setting of certain sites subject to Preservation Orders within 10km of Development: Chapter 13 of the EIAR states that all National Monuments within 10km of the Development site (PDS) were incorporated within the scope of the AIA (see Section 13.2.1). However, sites subject to a Preservation Order are considered to be*

⁹ Sansom A, Pearce-Higgins JW, Douglas DJ, 2016. Negative impact of wind energy development on a breeding shorebird assessed with a BACI study design. *Ibis* 158:541–555.

National Monuments as defined by the National Monuments (Amendment) Act 1930-2014, are of similar national significance and enjoy equal legal protection. Two sites meeting these criteria appear to have been omitted from the assessment:

- a) Church and Graveyard at Clashganny East, Co Tipperary (Preservation Order No 4/1997)*
- b) Archaeological Complex at Coumaraglinmountain, Co. Waterford (Preservation Order No 4/1996)*

Cumulative impacts to the setting of certain sites subject to Preservation Orders within 10km Development: Due to their exclusion from the AIA the potential Cumulative Impact of this Development to the aforementioned sites listed under Point 1 has not been evaluated.

The church and graveyard at Clashganny East, Co, Tipperary (Preservation Order No 4/1997. RMP TS088-033----. TS088-033001-) are subject to statutory protection under Section 14 of the National Monuments (Amendment) Act 1930-2014. These lie approximately 8km north of the PDS and so should have been evaluated to assess any potential indirect impacts/impacts on setting, based on the methodology and study area outlined in Section 13.2 of the EIAR. Review of the ZTV mapping (Figures 11.9, 11.10 and 11.11 of the EIAR) does suggest that the potential for such impacts is extremely low. However, this does not obviate the requirement for consistent application of the assessment methodology. the potential impacts of the development to this receptor should have been assessed.

The archaeological complex at Coumaraglin Mountain, Co. Waterford (Preservation Order No 4/1996) is also subject to statutory protection under Section 14 of the National Monuments (Amendment) Act 1930-2014. The Preservation Order encompasses a complex of 116 individual, inter-related monuments extending across an area measuring 2km by c. 2km located on the south side of the Araglin valley:

U. 2N11 by U. 2N11 100m x 100m

SMR No.	Class	SMR No.	Class
WA014-033002-	Stone row	WA023-066025-	Hut site
WA014-033003-	Cairn - cairn circle	WA023-066026-	Field system
WA014-033004-	Barrow - ring-barrow	WA023-066027-	Standing stone
WA014-033005-	Fulacht fia	WA023-066028-	Cairn - unclassified
WA014-033006-	Fulacht fia	WA023-066029-	Cairn - unclassified
WA014-033007-	Kerb circle	WA023-066030-	Cairn - ring-cairn
WA014-033008-	Kerb circle	WA023-066031-	Cairn - unclassified
WA014-033009-	Kerb circle	WA023-066032-	Field system
WA014-033010-	Standing stone - pair	WA023-066033-	Hut site
WA014-033011-	Cairn - burial cairn	WA023-066034-	Hut site
WA014-033012-	Cairn - burial cairn	WA023-066035-	Hut site
WA014-033013-	Cairn - ring-cairn	WA023-066036-	Hut site
WA014-033014-	Cairn - cairn circle	WA023-066037-	Cairn - unclassified
WA014-033015-	Cairn - cairn circle	WA023-066038-	Standing stone
WA014-033016-	Cairn - cairn circle	WA023-066041-	Cairn - unclassified
WA014-033017-	Cairn - cairn circle	WA023-066042-	Cairn - unclassified

SMR No.	Class	SMR No.	Class
WA014-033018-	Kerb circle	WA023-066043-	Cairn - unclassified
WA014-033019-	Kerb circle	WA023-066044-	Cairn - unclassified
WA014-033020-	Booley hut	WA023-066045-	Fulacht fia
WA014-033021-	Booley hut	WA023-066046-	Hut site
WA014-033022-	Booley hut	WA023-066047-	Hut site
WA014-033023-	Booley hut	WA023-066048-	Hut site
WA014-033024-	Booley hut	WA023-066049-	Field system
WA014-033025-	Booley hut	WA023-066050-	Standing stone
WA014-033026-	Booley hut	WA023-066051-	Cairnfield
WA014-033027-	Booley hut	WA023-066052-	Enclosure
WA014-033028-	Booley hut	WA023-066053-	Hut site
WA014-033029-	Kiln - lime	WA023-066054-	Hut site
WA014-033030-	Cist	WA023-066055-	Hut site
WA014-033031-	Cist	WA023-066056-	Cairnfield
WA014-033032-	Cist	WA023-066057-	Hut site
WA014-033033-	Cist	WA023-066058-	Hut site
WA014-033034-	Standing stone	WA023-066059-	Hut site
WA014-033035-	Cairn - unclassified	WA023-066060-	Hut site
WA023-066001-	Cairn - cairn circle	WA023-066061-	Hut site
WA023-066002-	Fulacht fia	WA023-066062-	Fulacht fia
WA023-066003-	Fulacht fia	WA023-066063-	Fulacht fia
WA023-066004-	Standing stone	WA023-066064-	Standing stone
WA023-066005-	Fulacht fia	WA023-066065-	Kerb circle
WA023-066006-	Fulacht fia	WA023-066066-	Cairn - unclassified
WA023-066007-	Standing stone	WA023-066067-	Cairn - ring-cairn
WA023-066008-	Hut site	WA023-066068-	Cairn - unclassified
WA023-066009-	Enclosure	WA023-066069-	Standing stone
WA023-066010-	Hut site	WA023-066070-	Standing stone
WA023-066011-	Enclosure	WA023-066071-	Standing stone
WA023-066012-	Kerb circle	WA023-066072-	Hut site
WA023-066013-	Cairn - unclassified	WA023-066073-	Hut site
WA023-066014-	Kerb circle	WA023-066075-	House indeterminate date
WA023-066015-	Standing stone	WA023-066077-	House Indeterminate date
WA023-066016-	Cairnfield	WA023-066078-	Booley hut
WA023-066017-	Standing stone	WA023-066079-	Booley hut
WA023-066018-	Kerb circle	WA023-066080-	Standing stone
WA023-066019-	Cairn - cairn circle	WA023-066081-	Burnt mound
WA023-066020-	Barrow - pond barrow	WA023-066082-	Cairn - ring-cairn
WA023-066021-	Hut site	WA023-066083-	Enclosure

SMR No.	Class	SMR No.	Class
WA023-066022-	Hut site	WA023-066084-	Hut site
WA023-066023-	Enclosure	WA023-066085-	Hut site
WA023-066024-	Hut site	WA023-076----	Megalithic tomb - unclassified

These monuments range in date from the Neolithic to the post-medieval periods, though prehistoric monument types predominate, suggesting a relict prehistoric landscape. They include three cairnfields, three field systems, four prehistoric enclosures, twelve fulachta fiadh, twenty-three hut sites, twelve standing stones, a stone pair, two possible stone rows,

thirteen cairns, four ring-cairns, seven cairn circles, nine kerb circles, a ring-barrow and an embanked enclosure. For a more detailed discussion of the archaeological complex see: Moore, M. (1995). A Bronze Age settlement and ritual centre in the Monavullagh Mountains, County Waterford, Ireland. *Proceedings of the Prehistoric Society*, 61, 191-243. doi:10.1017/S0079497X0000308X. Many of these monument types are (individually) particularly vulnerable to impacts on setting/visual impacts, in addition to the collective vulnerability of the overall archaeological complex.

Approximately 40% of the overall footprint of this complex lies within 10km of the PDS and so should have been evaluated to assess any potential indirect impacts/impacts on setting based on the methodology and study area outlined in Section 13.2 of the EIAR. While the AIA did assess the indirect impact of the proposal to three individual elements of this archaeological complex—WA014-033002- (Stone row), WA014-033010- (Standing stone - pair) and WA023-076---- (Megalithic tomb - unclassified)—these were only considered in isolation and not as part of this larger inter-related archaeological landscape/complex of monuments. Review of the ZTV mapping (Figures 11.9, 11.10 and of the EIAR) suggests that all proposed turbines would be visible from almost all areas within this protected archaeological complex and that it would also potentially be vulnerable to cumulative indirect impact as existing/permitted turbines would be visible as well. The Landscape and Visual Impact Assessment (LVIA) includes one relevant viewpoint —VP22 from local road at Goumaraglin, located at the southern extent of the archaeological complex. This was considered to be a location of high sensitivity in terms of its vulnerability to visual impacts in the LVIA. All 12 turbines are visible in the prepared photomontages and wireframe models but were only considered to be a sub-dominant visual presence in the landscape, so the significance of the impact was considered to be moderate-slight negative. However, the presence of the protected archaeological complex was not a factor in selecting the viewpoint for assessment or in the evaluation of its sensitivity and vulnerability to impact.

Any EIA must be informed by an adequate characterisation and understanding of the baseline archaeological and cultural heritage environment. The methodologies used to establish this baseline must be applied equally and consistently. Any divergences to include or exclude specific receptors must be clearly justified. Where there are significant omissions of vulnerable receptors from the characterisation of the baseline environment then there is potential that certain likely impacts or effects of a Development might not be identified.

If Further Information is being requested by the Board, it may be beneficial to consider including clarification of the aforementioned points as part of the request.

Notwithstanding this, the National Monuments Service (NMS), Department of Housing, Local Government and Heritage advises that the following should be included as a condition of any grant of permission. Note these recommended conditions align with Sample Conditions C3, C5 and C6 as set out in OPR Practice Note PN03. Planning Conditions (October 2022), with appropriate site-specific additions/adaptations based on the particular characteristics of this development and informed by the findings of the EIAR.

Archaeological Requirements:

1. *All mitigation measures in relation to archaeology and cultural heritage as set out in Chapter 13 of the EIAR (John Cronin & Associates. data May 2023) shall be implemented in full, except as may otherwise be required in order to comply with the conditions of this Order.*
2. *The developer shall engage a suitably qualified archaeologist to advise on, and establish appropriate Exclusion Zones around the external-most elements of vulnerable Heritage Assets (as identified from Chapter 13 of the EIAR) including Recorded Monuments WA013-020001- (Hut site), WA013-020002- (Standing stone), WA013-021---- (Standing stone) and WA013-022---- (Ringfort - rath) and the area of archaeological potential associated with a stone cairn near Turbine t3,*
 - a) *Exclusion Zones shall be fenced off or appropriately demarcated for the duration of construction works in the vicinity of the monuments. The location and extent of each Exclusion Zone and the appropriate methodology for fencing off or demarcating at each location shall be agreed in advance with the National Monuments Service and the planning authority.*
 - b) *No groundworks of any kind (including but not limited to advance geotechnical site investigations) and no machinery, storage of materials or any other activity related to construction will be permitted within Exclusion Zones.*
3. *The developer shall engage a suitably qualified archaeologist (licensed under the National Monuments Acts) to carry out pre-development archaeological testing in areas of proposed ground disturbance within the wind farm site and to submit an archaeological impact assessment report for the written agreement of the planning authority, following consultation with the National Monuments Service, in advance of any site preparation works or groundworks, including site investigation works/topsoil stripping/site clearance and/or construction works.*
 - a) *The report shall include an archaeological impact statement and mitigation strategy. Where archaeological material is shown to be present, avoidance, preservation in-situ, preservation by record (archaeological excavation) and/or monitoring may be required.*

- b) Any further archaeological mitigation requirements specified by the planning authority, following consultation with the National Monuments Service, shall be complied with by the developer.*
- c) No site preparation and/or construction works shall be carried out on site until the archaeologist's report has been submitted to and approval to proceed is agreed in writing with the planning authority,*
- 4. The Construction Environment Management Plan (CEMP) shall include the location of any and all archaeological or cultural heritage constraints relevant to the Development as set out in Chapter 13 of the EIAR and by any subsequent archaeological investigations associated with the project. The CEMP shall clearly describe all identified likely archaeological impacts, both direct and indirect, and all mitigation measures to be employed to protect the archaeological or cultural heritage environment during all 8 phases of site preparation and construction activity.*
- 5. The planning authority and the National Monuments Service shall be furnished with a final archaeological report describing the results of all archaeological monitoring and any archaeological investigative work/excavation required, following the completion of all archaeological work on site and any necessary post-excavation specialist analysis. All resulting and associated archaeological costs shall be borne by the developer.*

Reason: To ensure the continued preservation (either in situ or by record) of places, caves, sites, features or other objects of archaeological interest.

DAU Observation Response 3:

The Applicant confirms the approach taken in the EIAR as being appropriate and legally compliant for the following reasons:

The heritage related observations/recommendations co-ordinated by the DAU for the Proposed Development includes archaeological content prepared by the National Monuments Service (NMS) of the Department of Housing, Local Government and Housing. This content includes a confirmation that "the NMS has reviewed the EIAR and is broadly in agreement with the findings in relation to Archaeology and Cultural Heritage as set out therein" (Chapter 13 of the EIAR). The NMS observation/recommendations also include a range of archaeological requirements that they advise should be included a condition in any grant of planning for the Proposed Development, it is noted that the Applicant can accommodate these should planning consent be granted.

The NMS also note that two sites subject to preservation orders located within the wider landscape are not included in the EIAR assessment and these comprise a Church and

Graveyard at Clashganny East Co. Tipperary (Preservation Order No 4/97) and an Archaeological Complex at Coumaraglinmountain, Co. Waterford (Preservation Order No 4/1996) (see Figure 3 below).

The following sections present contextual details for the two sites subject to preservation orders and an assessment of potential indirect effects on their wider settings, including any potential intrusions on ritual alignment attributes that they may possess, which may arise from the Proposed Development.

Clashganny East Church and Graveyard

Preservation Order no. 4/1997

SMR: TS088-033---- and TS088-033001-

This archaeological site is located approximately 6.8km to the north of the nearest turbine (T13). A review of the inventory description of this site as published on the NMS Historic Environment Viewer (HEV) revealed that the Archaeological Survey of Ireland records that no surface traces of the church survives at the location while the surface remains of a graveyard boundary comprise the partial remains of a low bank feature in the southwest quadrant, which survive to a height of 0.52m-0.56m, while it is delimited by a scarp in the northeast quadrant. The description does not record the presence of any surface traces of burial plots within the graveyard.

HEV description of Clashganny East Church and Graveyard

The church is not visible at ground level. The graveyard consists of a triangular-shaped area (diam. 33.5m NW-SE which may extend further NW by 20m. c. 30m NE-SW tapering towards the SE), defined by a bank (With 0.85m crest, 1.9m base. Int. H 0.56m. ext. H 0.52m) in the SW quadrant and by scarp in the NE. The bank is stone faced on the E side.

A review of historic Ordnance Survey (OS) maps of the location of this site revealed that the 1st edition 6-inch map (published 1843) includes a dashed sub-circular area (c.33m east-west by 31m north-south) labelled as 'Graveyard'. The map does not depict a church building at the location indicating that it had likely been levelled prior to 1843. The graveyard is not depicted on the 25-inch OS map (1906) or the 2nd edition 6-inch map (1907) and a review of modern online aerial/satellite imagery of the location revealed that the site is currently located within a green field area in private farmland.

A review of the Zone of Theoretical Mapping (ZTV) prepared for the Proposed Development (EIAR Figures 11.9, 11.10 and 11.11) revealed that none of the turbines will be visible from the location of the Clashganny East Church and Graveyard.

In addition, the NMS observations broadly agree with the EIAR and propose conditions to be attached to permission where granted.

Given the distance of Clashganny East Church and Graveyard from the Proposed Development, in combination with the nature of their visible surface remains, which comprise the partial remains of a low bank (0.56m maximum height), and the absence of any intervisibility between its location and the turbines it is concluded that the Proposed Development will not result in any predicted construction, operational, decommissioning or cumulative indirect effects on the setting of the church and graveyard.

Archaeological Complex at Coumaraglinmountain, Co. Waterford

Preservation Order No 4/1996

This preservation order encompasses a Bronze Age complex which contains 116 individual, inter-related sites within an area measuring c.2km by 2km the south side of the Araglin Valley and its nearest section is located c.8km to the east of the Proposed Development (See Figure 3 below showing the location of this complex in relation to the Proposed Development). As stated in the EIAR The sites within the complex comprise three cairnfields, three field systems, four prehistoric enclosures, twenty-three hut sites, twelve standing stones, a stone pair, two possible stone rows, thirteen cairns, four ring-cairns, seven cairn circles, nine kerb circles, a ring-barrow, a megalithic structure and an embanked enclosure (SMR WA014-033002- to WA014-033035. (inclusive) and WA023-066001- to WA023-066084-(inclusive)). The sites are located within third-party lands and no heritage centres or formal access routes to their locations are present. As noted by the NMS, c.40% of the overall footprint of the complex lies within 10km of the Proposed Development. The NMS also note that, while the EIAR does assess potential indirect impacts on three archaeological monuments within the complex, which comprised monument types with potential visual alignments across the wider landscape, these were considered in isolation and not as part of the wider inter-related complex which may be vulnerable to operational/cumulative indirect impacts on its setting. As noted in Table 13.6 of the EIAR, the review of the recorded monuments with potential visual alignment attributes within the complex revealed that none were directly aligned towards the location of the Proposed Development.

The following paragraphs are based on a review of the article cited in the NMS observation¹⁰ in relation to the setting of the archaeological complex and its potential visual relationship

¹⁰ Moore, M. (1995) 'A bronze age settlement and ritual centre in the Monavullagh mountains, County Waterford, Ireland'. Proceedings of the Prehistoric Society 61, 191-243.

with the wider landscape, including any potential intrusions on notable ritual sightlines that may arise from the Proposed Development.

The Coumaraglinmountain archaeological complex was extensively surveyed and researched by Michael Moore in the 1990s and this included a highly detailed analysis of potential intervisibility between individual and groups of monuments within the internal area of the complex. A range of intricate postulations are presented in the article in relation to the organisational and ritual aspects of the complex based on a detailed analyses of the internal visual fields in combination with the nature and settings of the various monument types within the valley. This also included an analysis of the potential ritual significance of the progression of sunlight shadows across the valley during winter months. Given the distance of the Proposed Development (c.8km to the west) from the nearest section of the complex no potential for significant indirect effects on the immediate setting of the internal visual fields between the sites within the complex or potential shadow movements within the valley are predicted.

In relation to potential indirect impacts arising from the Proposed Development on ritual aspects of the complex within the wider landscape, as noted by the NMS, the ZTV mapping indicates that all turbines will be visible from the majority of the valley containing the archaeological complex, as will potentially other turbines within the wider landscape. Chapter 11 of the EIAR - Landscape and Visual contains an assessment of potential visual impacts from a section of the public road to the south of the valley (VP22), which is in an elevated location that provides a clearer view westward towards the Proposed Development than likely exists within the internal area of the valley. This area is identified as being of high sensitivity and the assessment of visual impacts from the location predicts a low magnitude and a slight-moderate significance of impact. The chapter also contains the following text in relation to views from the location of VP22:

Whilst the moving turbine components will likely be noticeable features, even from this distance of over 9km, the Proposed Development is viewed in the context of a broad sweeping panorama influenced by a range of productive land uses in addition to existing wind energy development. As a result, whilst the proposed turbines will marginally increase the intensity of built development in this view, they are viewed at a considerable viewing distance, present in a legible manner, and will not contribute to a strong detracting in the scenic amenity of this broad sweeping view.

Furthermore, in relation to potential indirect impacts on the wider setting of the archaeological complex, Moore's article also presents the results of an analysis of the locations of the setting summer sun along the wider western horizon which is of relevance to the location of the Proposed Development. While Moore observes that the location of the setting sun progresses

along the western horizon during spring, summer, and autumn months he notes that the most notable solar events visible from the complex comprise views towards the Galtee Mountains to the northwest where the sunset occurs during the summer solstice as well as during the Beltaine (May) and Lughnasa festivals (August) [Moore 1995, p. 218 and 219]. Given the likely significance of these dates to prehistoric communities he postulates that the Galtee solar alignment was likely of notable ritual importance perhaps marked by ritual celebrations held within the complex (ibid. p.235). The Galtee Mountains are located c.20km to the north of the Proposed Development and the proposed locations of the turbines do not impinge on the direct sightline between the archaeological complex towards that area. In addition, a review of the locations of other existing, permitted or proposed wind farms within the wider landscape (EIAR Figure 11.11) revealed no examples that are located within the environs of the direct sightline between the Coumaraglinmountain archaeological complex and the Galtees solar alignment noted in Moore's article. Given the distances between the location of the Coumaraglinmountain complex and the Galtees to the northwest as well as the Knockmealdown Mountains to the west, there is no likely potential for the presence of archaeological monuments within these areas that are intervisible with the complex, including any examples within the environs of the Proposed Development.

Based on the above review of the location and archaeological context of the Coumaraglinmountain complex, including an appraisal of the orientation of monuments with ritual alignment attributes as well as other potential significant archaeological sightlines across the wider landscape which may relate to ritual activities held within the internal area of the complex, it is concluded that the location of the Proposed Development at a distance of 8km+ to the west will not result in any likely significant operational or cumulative impacts on the immediate or wider setting of the archaeological complex.

The Applicant would welcome the opportunity to submit further information on this point if requested by An Bord Pleanála.

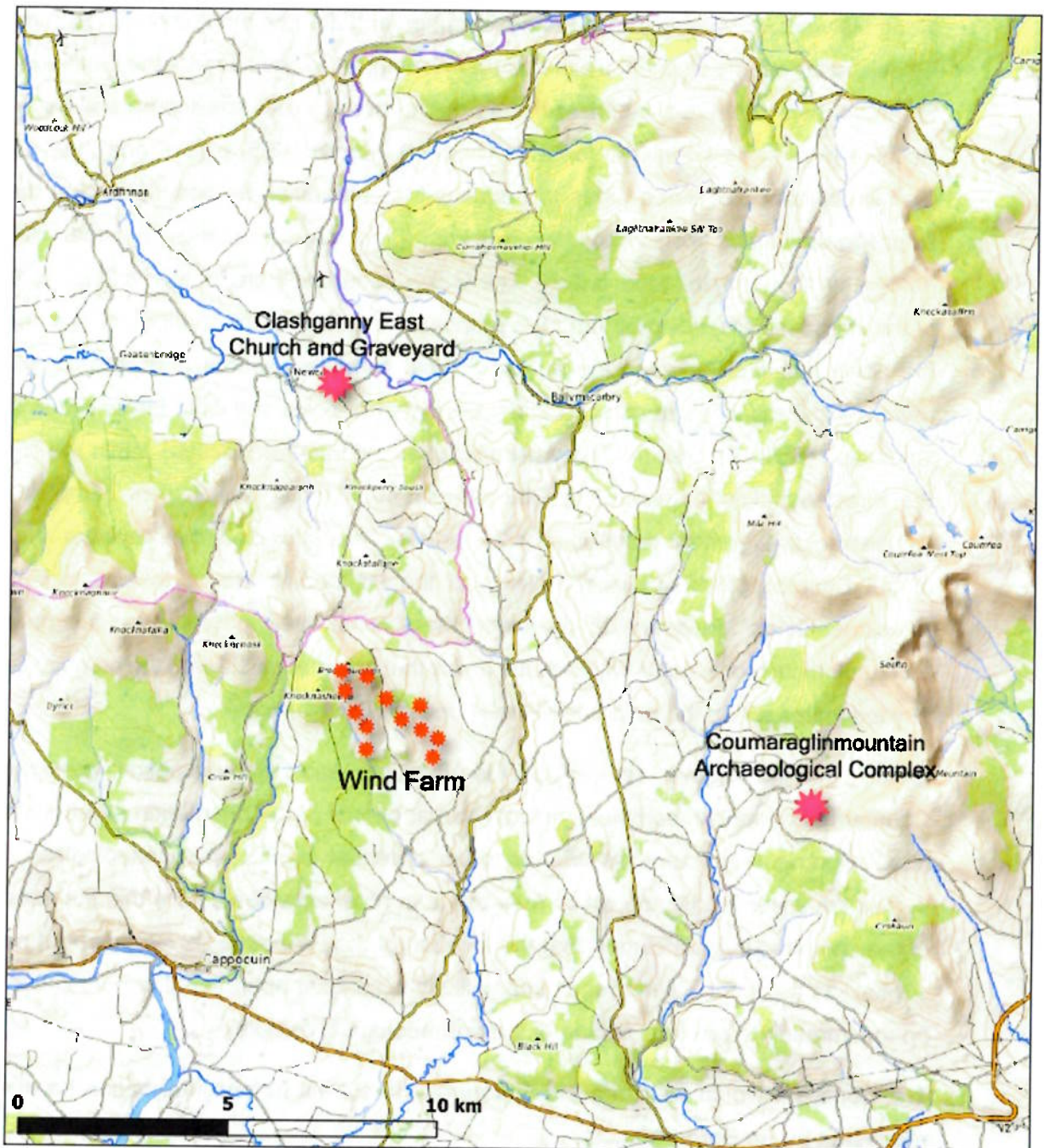


Figure 3: Locations of archaeological sites subject to preservation orders in relation to the Proposed Development (turbine locations indicated in red)

3.2 **AN TAISCE**

The submission from An Taisce includes several points these, alongside the responses, are set out herein.

An Taisce Observation Item 1:

“Development Plan provisions

The subject site is located in an area classed as an exclusion zone for wind development per the Waterford City and County Development Plan 2022-2028. An Taisce does not consider that the applicant has sufficiently justified the location of the proposal in an exclusion zone, and therefore we do not consider that a material contravention of the Development Plan is warranted in this case. It is recommended that an alternative site be found in an area classed as either "open for consideration" or "preferred" for wind energy development.

Northern portions of subject site are adjacent to the Tipperary border. We note that the area of Tipperary bordering the site has also been classed as unsuitable for new wind energy development per the Renewable Energy Strategy (Map 11) in the current Tipperary County Development Plan 2022-2028."

An Taisce Observation Response 1:

There is specific supporting international, national, regional, and local policy and/or guidance for commercial onshore wind energy development in Ireland. The Waterford County Development Plan is considered supportive of the development of renewable energy technology, particularly in the context of reducing the carbon emissions and meeting renewable energy production targets.

The 2016 – 2030 Renewable Energy Plan for County Waterford meant a change to previously designated areas of 'open to consideration' or 'suitable for wind energy'. This designation for The Site has changed in the most recent County Development Plan 2022-2028 to an 'Exclusion zone' for wind development. However, it is worth noting that the Renewable Energy Strategy does not comply with the requirements of the SEAI 'Methodology for Local Authority Renewable Energy Strategies'. Further information on this can be found in Section 2.7 of this document.

This has been included in detail in **EIAR Chapter 11: Landscape and Visual Amenity** and the accompanying **Planning Statement** submitted with the EIAR. The Planning Statement outlines the justification for the Proposed Development which will not significantly impact the surrounding area.

The Proposed Development still strongly supports national policies and other local authority policies. Please also see the policy guidance that is set out in Section 2 of this response document.

The Board has the right to materially deviate from the terms of the Development Plan:

S.37G(6) Planning and Development Act 2000 as amended applies if there is in fact deviation from the relevant development plan and authorises the Board to grant a permission for development in such circumstances.

An Taisce Observation Item 2:***"Potential adjoining windfarm development***

We note that plans for a 16-turbine windfarm directly adjacent to the subject site are currently being prepared. While this project is still in pre-planning stages at the time of writing, information available in the public domain on the project website (scartmountainwindfarm.ie) indicates that extensive surveying work is ongoing and identifies provisional turbine locations. The potential cumulative impacts of this proposed windfarm in combination with the subject proposal should be fully assessed, for the purposes of both Environmental Impact Assessment and Appropriate Assessment. The two projects combined would represent a total of 28 turbines - more than double the amount proposed in the subject application alone."

An Taisce Observation Response 2:

The approach taken to Cumulative Impact Assessment is set out in Chapter 1 introduction of the EIAR. The purpose of the cumulative impact assessment was to identify the likely significant effects the Proposed Development would have on the surrounding environment when considered cumulatively and in combination with relevant projects both and within the vicinity of the Proposed Development. Assessment material for the cumulative impact assessment was gathered through a search of relevant online Planning Registers, reviews of relevant EIAR (or historical EIS) documents, planning application details (including planning drawings), and served to identify past and future projects, their activities and their environmental impacts.

In addition, the cumulative assessment in the Appropriate Assessment is outlined in section 5.4 *IN-COMBINATION EFFECTS*. At the time of writing the EIAR, Scart Mountain Wind Farm was in pre-planning stages and not yet in the Planning System. The earliest information relating to the Scart Mountain project was from October 2022 which provided an outline of the wind farm study area but no specific criteria or layout. Turbine coordinates, which are required to carry out the appropriate cumulative studies, were not provided, therefore, the lack of information to accurately assess the potential cumulative effects. Due to this data deficiency at the time the potential cumulative effects of this development in combination with the Proposed Development could not be assessed.

An Taisce Observation Item 3:***"Legal obligations under the Habitats Directive***

It is now well established in law that approval can only be granted for plans and projects when it has been established beyond all reasonable scientific doubt that the subject proposal will not adversely impact any Natura 2000 sites.

In Case C-258/11, Sweetman & Others v An Bord Pleanála & Others, it was held that the provisions of Articles 6(2)-(4) of the Habitats Directive must be interpreted together “as a coherent whole in the light of the conservation objectives pursued by the directive” and that they impose a series of specific obligations necessary to achieve and maintain favourable conservation status. A plan or project will negatively impact upon a site if it prevented the “lasting preservation of the constitutive characteristics” of the site for which it was designated, with reference to the site’s conservation objectives. Significantly it was determined that “authorisation for a plan or project may therefore be given only on condition that the competent authorities are certain that the plan or project will not have lasting adverse effects on the integrity of the site, that is so where no reasonable scientific doubt remains as to the absence of such effects” [emphasis added].

The competent authority must therefore refuse authorisation for any plans or projects where there is uncertainty as to whether the plan or project will have adverse effects on the integrity of the site. It was also held in paragraph 44 that:

“So far as concerns the assessment carried out under Article 6(3) of the Habitats Directive, it should be pointed out that it cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned (see, to this effect, Case C 404/09 Commission v Spain, paragraph 100 and the case-law cited)...” [emphasis added].

In Kelly v An Bord Pleanála & Others, [2013 No 802 J.R.] with reference to Commission v Spain c-404/09, the High Court held in paragraph 36 that the competent authority must carry out an Appropriate Assessment for a plan or project in light of the best scientific knowledge in the field. It was also held that the competent authority must lay out the rational and reasoning which was used to arrive at the determination.

The case repeated the conclusion of the CJEU at paragraph 44 in the aforementioned Case C- 258/11, namely that an AA “cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt.” Consequently, it was held that an AA must include “examination, analysis, evaluation, findings, conclusions and a final determination.”

The Kelly Judgement has provided a very helpful clarification of the requirements of an AA and in particular in paragraph 40, a summary of what must be delivered by the process in order to be lawfully conducted:

“(i) Must identify, in the light of the best scientific knowledge in the field, all aspects of the development project which can, by itself or in combination with other plans or

projects, affect the European site in the light of its conservation objectives. This clearly requires both examination and analysis.

(ii) Must contain complete, precise and definitive findings and conclusions and may not have lacunae or gaps. The requirement for precise and definitive findings and conclusions appears to require analysis, evaluation and decisions. Further, the reference to findings and conclusions in a scientific context requires both findings following analysis and conclusions following an evaluation each in the light of the best scientific knowledge in the field.

(iii) May only include a determination that the Development will not adversely affect the integrity of any relevant European site where upon the basis of complete, precise and definitive findings and conclusions made the Board decides that no reasonable scientific doubt remains as to the absence of the identified potential effects."

If uncertainty exists regarding the potential impact of any Development full account should be taken of the precautionary principle, and the development should be refused.

We note that Hen Harriers were observed on the site. Hen Harrier is a highly threatened species protected under Annex I of the Birds Directive. The application site is not located within an SPA, however, under Article 4 of the Birds Directive, Member States are required to strive to avoid pollution or deterioration of habitats of interest in areas outside specifically identified protection areas. It must be determined that the subject proposal will not adversely impact Hen Harrier, including in combination with the Scart Mountain windfarm proposal, which is currently in pre-planning."

An Taisce Observation Response 3:

See responses to section 3.1 (Response to DAU).

Specific defence of the AA carried out (either here or by way of more specific cross reference) and, as a bolstering point, reference to Council Regulation (EU) 2022/2577 as amended by Council Regulation (EU) 2024/223 which designates renewable energy infrastructure projects as being in the overriding public interest within the terms of s.6 Habitats Directive.

3.3 COILLTE

In its submission to the Board, Coillte asserts that they consider the best practice set back distances to neighbouring property has not been observed.

Coillte Observation Item 1:

"As a neighbouring Landowner, Coillte CGA are concerned that the proposed project is not following established best practice guidance in relation to set back distances from neighbouring properties. Section 5.13 of the 2006 Planning Guidelines for Wind Energy Developments states that: "a distance of not less than two rotor blades from adjoining property boundaries will generally be acceptable, unless by written agreement of adjoining landowners to a lesser distance". It was subsequently clarified by the Department in the Circular Letter PD 6/06 (6th September 2006) that a distance of not less than two rotor blades is equivalent to two rotor diameters and that this applied to Section 5.13 of the Guidelines: "rotor blades are to be measured according to rotor diameter, and that "a distance of not less than two rotor blades' is therefore equivalent to the two rotor diameters. This also applies to Chapter 5 (Environmental Implications), Section 5.13 and Chapter 7 (Planning Conditions), Section 7.17".

In order to achieve a two rotor diameter separation distance from the Coillte estate for the stated turbine size in the subject proposal, turbines should be located at least 324m away from the Coillte property boundary. According to the site layout drawings submitted as part of the subject proposal, Coillte observes that the separation distances of the following turbines are well below the required separation distance:

T8 - 171m from Coillte boundary

T9 - 185m from Coillte boundary

T10 - 162m from Coillte boundary

T11 - 192m from Coillte boundary

T12 - 187m from Coillte boundary

T13 - 157m from Coillte boundary

While Coillte is very supportive of wind farm developments we would like to note that no agreement has been made between the applicant and Coillte to locate turbines within two rotor diameters of the Coillte property boundary."

Coillte Observation Response 1:

Section 5.13 of the 2006 WEGS addresses the question of 'windtake' being the adverse effect of a wind farm development on the development potential of neighbouring lands for wind farm use:

In general, to ensure optimal performance and to account for turbulence and wake effects, the minimum distances between wind turbines will generally be three times the rotor diameter (=3d) in the crosswind direction and seven times the rotor diameter

(=7d) in the prevailing downwind direction. Bearing in mind the requirements for optimal performance, a distance of not less than two rotor blades from adjoining property boundaries will generally be acceptable, unless by written agreement of adjoining landowners to a lesser distance. However, where permission for wind energy development has been granted on an adjacent site, the principle of the minimum separation distances between turbines in crosswind and downwind directions indicated above should be respected. (emphasis added)

Coillte, in its submission relies on the interpretation of "two rotor blades" proffered by the Assistant Principal Officer of the Department of Environment, Housing and Local Government contained in circular letter PD 6/06 of the 6th September 2006 issued to all city and county councils (**Circular 6/06**), namely "two rotor blades" should be interpreted as two rotor diameters as opposed to two times the blade length. In the first instance we would point out that Circular 6/06 is the opinion of the Assistant Principal Officer of the Department and cannot be elevated to the status of an amendment of a statutory ministerial guideline. It is not therefore a matter which the Board must have regard.

Furthermore, the Department of Housing, Planning and Local Government published draft revised Wind Energy Development Guidelines in December 2019 (the "2019 Draft WEGs"). The 2019 Draft WEGs remain in draft form having never being adopted. However, on the question of windtake the 2019 Draft WEGs retains the language used in the 2006 WEGs ("two rotor blades") and did not take the opportunity to affirm the clarification set out in Circular 6/06.

With respect to the Proposed Development the rotor diameter of the candidate turbines is 162m with an approximate blade dimension of 80m, the offset distance to adjoining properties is considered to be consistent with the WEG guidelines. If however, the WEGs were to be interpreted as advocated in Circular 6/06 (and by Coillte), the Applicant acknowledges that 6 turbines would be located less than 324 m, from the site boundary with the Coillte Lands.

Without prejudice to our view as to the unambiguous interpretation of the term "two rotor blades", should the Board prefer the 2RD interpretation we would ask the Board to consider the status of the WEGs and their obligations with regard to same. Sections 37G and 143 of the Planning and Development Acts 2000 to 2023 (PDA) requires the Board to have regard to any regulations made under the PDA when making a decision on an application made to it pursuant to Section 37E.

In *Cork County Council v. The Minister for Housing, Local Government and Heritage & Ors.* [2021] IEHC 683 Humphreys J. explained the duty to 'have regard' to ministerial guidelines made under section 28 of the PDA where at paragraph 57 of his judgment he held that

"Having regard implies looking at the matter concerned, and factoring in its relevance, if any, and weight, if any, as those matters appear to the decision-maker" (emphasis added).

It is clear from the judgment in *Cork County Council*, and indeed the wider jurisprudence on the point, that to 'have regard to' does not require compliance with, the decision maker must merely demonstrate that they have considered all relevant matters, including any relevant ministerial guidelines, but it has considerable discretion in determining the weight to be afforded such matters.

In considering the relevance of the setback guidelines set out in the WEGs in any given case, it is appropriate that the Board have regard to the objective of the set-back guidelines – namely, to preserve the potential for wind farm development on adjoining lands. Therefore, to the extent that the adjoining land in question is unlikely to sustain future wind farm development, the set-back guidelines (whether "two rotor blades" or 2RD) are not relevant.

The Coillte Land to the west of the Proposed Development would not generally be considered suitable for wind energy development. This is due to the restrictive size of the available land and the setback requirements to nearby dwellings in close proximity to these lands.

The WEGs specify a 4 times tip height set back to dwellings, unless an agreement is in place with the relevant landowner to reduce the setback to the minimum of 500 m (regardless of turbine height).

The trade association Wind Energy Ireland states that two rotor diameters should be "considered", *"where significant commitment has been made to developing a neighbouring wind farm"*, but this is clearly not the case for the identified Coillte land. As part of the planning process, the Applicant for the Proposed Development published advertisements in the local newspaper and in the local parish newsletters on consecutive weeks of its intent to hold two Open Public Information Days (details of such can be found in EIAR Section 1.11.1). On these days the Wind Farm plans as then developed were on display and information brochures were freely available to all. The Public Information Day was well attended by local residents, local public representatives and officials, landowners and other interested parties. So far as the Applicant is aware, Coillte did not attend that consultation process and certainly did not comment directly to the Applicant on the proposals.

If plans for wind development on this folio were to be initiated, Coillte would be required to adhere to a setback from the adjoining development as this site meets the definition. *"where significant commitment has been made to developing a neighbouring wind farm"*.

The set back would be either the literal two rotor blades definition (c. 160 m) or the two rotor diameter definition (324 m), as they are advocating for. This further restricts the area available for wind energy development.

3.4 **FUTUREENERGY IRELAND**

Received on 2nd August 2023.

FuturEnergy Ireland Observation Item 1:

"1 Set-back from adjacent lands

The Proposed Dyrick Hill Wind Farm (the Proposed Wind Farm) is located adjacent to lands owned by Coillte Teoranta (Coillte) and on which FuturEnergy Ireland Development DAC (FEI) enjoys land rights and is in the process of developing for a wind farm, Coillte is a 50% shareholder in FEI.

Section 5.13 of the Wind Energy Development Guidelines, 2006 (the 2006 WEDGS) - statutory guidelines made by the Minister of the Environment, Heritage and Local Government (DEHLG) pursuant to Section 28 of the Planning and Development Act - addresses the question of 'wind take'. being the adverse effect of a wind farm development on the development potential of neighbouring lands for wind farm use:

"In general, to ensure optimal performance and to account for turbulence and wake effects, the minimum distances between wind turbines will generally be three times the rotor diameter ($=3d$) in the crosswind direction and seven times the rotor diameter ($=7d$) in the prevailing downwind direction. Bearing in mind the requirements for optimal performance, a distance of not less than two rotor blades from adjoining property boundaries will generally be acceptable, unless by written agreement of adjoining landowners to a lesser distance. However, where permission for wind energy development has been granted on an adjacent site, the principle of the minimum separation distances between turbines in crosswind and downwind directions indicated above should be respected."

The meaning of "...a distance of not less than two rotor blades..." was subsequently clarified by the (then) Department of the Environment, Heritage and Local Government in "Circular Letter PD 6/06", which is attached for ease of reference. The Departmental Circular confirms that the 2006 WEDGS require a set- back distance of two rotor diameters (2RD) from neighbouring properties.

The 2019 Draft WEDGS (published by the Department of Housing, Planning and Local Government) remain in draft form but have retained the language on wind take used in the 2006 WEDGS.

We would note that the intention of this set-back provision of the Ministerial guidelines is to address issues in relation to potential wind take and to protect the potential for wind farm development on adjoining property. As such, where turbines are located less than two rotor diameters from neighbouring properties, but there is no practical development potential on the neighbouring property, we would accept that a breach of this 2RD guidance limit could be acceptable. We therefore have no issue with the siting of the Proposed Wind Farm's T8 and T6 where there are minor 2RD exceedances in relation to Coillte owned lands, on the basis that the scale of these lands would be insufficient to enable development of turbines. However, the 5No. turbines on the western boundary of the Proposed Wind Farm site (T09 — T13) are all exceeding the 2RD requirement and are adjoining lands which FEI currently enjoys exclusive land rights to, and that are the subject of our active Scart Mountain Wind Farm development project (Refer Figure 1 overleaf).

FEI's Scart Mountain Wind Farm project involves a significant financial investment from the shareholders of FuturEnergy Ireland, this investment has been underpinned by an assumption that any potential developments on neighboring lands would be required to follow the Ministerial Guidelines, given the significant wind energy development potential of the Scart Mountain Wind Farm Site. The FEI project has been in design development for several years (originally by Coillte and subsequently since its formation in 2021, by FEI) and was publicly launched in October 2022. The SID pre-application process has been initiated with An Bord Pleanála and a planning application is scheduled for late 2023.

The intent of the 2006 WEDGS is to preserve the development potential of neighbouring property for wind farm development. It is of significant concern that the Proposed Wind Farm fails to have regard to these Ministerial Guidelines,

An Bord Pleanála must have regard to the 2006 WEDGS, as required under Section 37G of the Planning and Development Act, and in circumstances where there is obvious wind energy development potential as is the case on our adjoining lands, Section 5.13 is clearly relevant to its consideration of the Proposed Wind Farm application. We see no objective, reasonable justification for not requiring strict compliance with the set-back prescribed in the 2006 WEDGS."

FuturEnergy Ireland Observation Response 1:

Set back from adjacent lands

Please see the response to Coillte in Section 3.3 of this submission, which covers points raised regarding setback distances.

FuturEnergy Ireland Observation Item 2:**"2.1 Ornithology"**

The Proposed Wind Farm is located within an area known to support breeding hen harrier both historically and during present day. We note that Chapter 7 of the EIAR provides some detail on breeding hen harrier but are concerned that the data presented by the applicant is not complete as some known breeding sites within, or in close proximity, to the Development site do not appear to be referenced. The habitats present within the proposed wind farm, particularly the area of dry heath, are considered suitable to support breeding hen harrier and records held by NPWS demonstrate that hen harrier successfully bred, and fledged young, in this area for several years including as recently as 2019."

FuturEnergy Ireland Observation Response 2:

Please refer to section 3.1 (Response to DAU) for response.

FuturEnergy Ireland Observation Item 3:**"2.2 Biodiversity"**

Annex I dry heath habitat is present within the Proposed Wind Farm site as stated by the applicant and evidenced by their reference to the Article 17 dataset held by National Parks and Wildlife Service, and survey work carried out at the development site, Table 6.1.1 evaluates the Annex I dry heath habitat within the Development site as being of national importance.

The Annex I dry heath habitat will be directly affected by the wind farm Infrastructure and approximately 34,000 m² of this habitat will be permanently lost because of the access track and turbines 10, 11, 12 and 13 (See Chapter 6, Table 6.12 of the EIAR). This estimate is based on the findings of habitat surveys completed at the Proposed Wind Farm by the applicant's consultant and not on the Article 17 dataset provided by NPWS. Chapter 6 of the EIAR states that an accurate area of dry heath habitat, representative of the Annex 1 habitat European dry heath has been mapped by the applicant's consultant, as shown on Figure 6.8 Habitat Map. There does not appear to have been any documented consultation or dialogue with NPWS on the extent of dry heath within the Development site.

The direct effect of habitat loss due to the Proposed Wind Farm is identified as a significant negative effect at the national/international scale in Chapter 6 of the EIAR. It is further described as "This extent of loss of an example of Annex 1 habitat that forms part of the national resource of dry heath habitat is representative of a significant, permanent negative impact at the local scale." [emphasis added]

The proposed approach to compensate the loss of this habitat is through what Chapter 6 describes, under the heading of "offsetting and habitat restoration". This section of the chapter refers the reader to the Habitat Management Plan as follows "Habitat Management Plan is provided as Appendix 6.4 and all measures set out in this plan will be implemented as part of the Development." It is not clear following a review of Appendix 6.4 how such measures will be achieved as much of the text appears non-specific to the conditions of the habitats in question and are rather generic in nature, There appears to be a lack of clarity around when the proposed measures will be implemented and when they are likely to achieve their stated aims. It is also not clear what the applicant predicts in terms of residual significant effects as Table 6.15 states that "The long-term residual impact will be dependent upon achieving the targets set out in the Habitat Management Plan. The successful achievement of the targets set out in this Plan will have the potential to offset the loss of dry heath to the footprint of the proposed wind farm through the provision of a net increase the area of dry heath habitats occurring within the Development boundary. The achievement of this aim of the HMP will also have the potential to contribute towards an increase of the favourable reference area of this habitat, with the potential for positive, long-term effects for this habitat at the international scale."

Given the evaluation of the habitat as being of national importance, along with the predicted severity of the effect of the Development on Annex I dry heath habitat, it seems likely that long term significant residual effects will remain due to the loss of the dry heath habitat and lack of clarity and detail around monitoring the efficacy of the proposed habitat specific measures for restoration and enhancement. In addition, while timelines for monitoring surveys are proposed there is no timeline provided for implementation of the proposed measures nor are there any milestones or points in time provided for achieving the stated objectives of restoration and enhancement.

FuturEnergy Ireland Observation Response 3:

The NPWS have provided a submission in relation to the Proposed Development, which provides, inter alia, their comments with regard to the loss of dry heath habitat to the footprint of the Proposed Development. A response to these comments is provided under Section 3.1 DAU.

Furthermore, it is noted that the statement included in the submission; '*The direct effect of habitat loss due to the proposed project is identified as a significant negative effect at the national/ international scale*' is based on the assessment set out in Table 6.12 of the Biodiversity Chapter which identifies that the loss of dry heath habitat as a result of the footprint of the Proposed Development has the potential to result in significant negative effects at the national/international scale. This statement does not reference the mitigation

measures that aim to minimise this potential impact. As set out above under Section 2, Table 6.15 of the Biodiversity Chapter sets out an assessment of the residual effects of the Proposed Development for dry heath habitat which is considered to be significant over the short to medium term but can be reversed upon successful implementation of the Habitat Management Plan prepared as part of the application for the Proposed Development. It is noted in the residual assessment that the successful implementation of the Habitat Management Plan has the potential to contribute towards an increase in the overall favourable reference range of sensitive habitats such as dry heath habitat. Such a long-term outcome is considered to be representative of a positive residual effect for biodiversity.

RE: It is not clear after reviewing appendix 6.4 how much measures will be implemented

The Table 6.2 of the Habitat Management Plan sets out a clear and concise action table for the implementation of all actions specified in the plan. The target, method, measurement, timing and, critically, the entity responsible for the delivery of each action is provided. As per the HMP it will be the responsibility of the entity identified in Table 6.2 to ensure the implementation of all actions.

RE: and when they are likely to achieve their stated aims.

It is noted that Table 6.2 generally sets out under the Column "Method" when actions are to be implemented so that the stated target specified in the "Target" column is achieved. It is also noted that timescales are set out for specific actions in Section 5 of the HMP (e.g., HMP Action Ref. No. 4 – see below). However, for clarity, the following table is provided to illustrate the time scales over which Targets will be/are predicted to be achieved.

Table 3.4.1: Action table for the implementation of all actions specified in the Habitat Management Plan

HMP Action Ref. No.	Target	Time Scale
1	No decrease in water quality in eroding upland rivers during the construction phase.	Construction phase
2	Promote grazing regimes as outlined in Section 5	Operation phase Year 1 – Commencement
4	Reduce bracken cover to <10% within treatment Plots 5, 6, and 7. Reduce gorse cover to <50% within treatment Plots 2 and 3	Operation phase Year 5
5	Sensitively remove heathland vegetation as turves under the footprint construction site, maintain turves in good condition so that	Construction phase

HMP Action Ref. No.	Target	Time Scale
	they can be reinstated in temporary construction areas.	
6	Re-instate turves and restore heathland vegetation in the reinstatement areas.	Construction phase
7	Plant and maintain hedgerows in line with the targets set out under Section 5.4.5 and Table 6.1.	Planting to be completed during the construction phase. Ongoing monitoring and maintenance throughout the operation phase as specified under Timing Column
8	Non-indicator peat species should be kept to a minimum of <10% of the vegetation in the HMP area priority habitats.	Operation phase Year 5. Monitor and maintain target levels for subsequent duration of the operation phase
9	No drainage of Lisleagh Mountain wetland throughout the lifetime of the HMP.	Operation phase Year 1 – Commencement Monitor and maintain target for subsequent duration of the operation phase
10	Prevent certain land use practices to ensure favourable conservation status of heathland habitats.	Operation phase Year 1 – Commencement Monitor and maintain target for subsequent duration of the operation phase
11	Actively re-seed areas of the Heathland Management Area where surface turves have failed to knit together or where heathland vegetation has failed to establish.	Remedial Action – to be implemented post Year 5 operation phase as required
12	Maintain 100m vegetation buffer surrounding all turbines	Operation phase Year 1 – Commencement Monitor and maintain target for subsequent duration of the operation phase

RE: It is also not clear what the applicant predicts in terms of residual significant effects as table 6.15 states that “the long-term residual impact will be dependent upon achieving the targets set out in the Habitat Management Plan”.

What is meant by this statement is that the long-term residual impact is contingent upon achieving the targets set out in the HMP. In the absence of the achievement of the targets set out in the HMP the predicted long-term impact of the Proposed Development with respect to habitats of nature conservation value such as dry heath will be representative of a significant negative long-term effect. However, the HMP has been prepared with the intention

of avoiding such long-term effects. The HMP provides a management regime for target habitats namely heath, wetland and hedgerow habitats occurring within the Proposed Development. With the successful implementation of this management regime and the achievement of the targets that underpin this regime the residual assessment of the Proposed Development has found that it will have the potential to contribute towards an increase in the overall favourable reference range of dry heath habitat. It will also provide for the long-term management of the Lisleagh Mountain Wetland site, which will offset the loss of wet grassland habitat to the footprint of the Proposed Development. Furthermore, it will have the potential to result in a net increase in the length of hedgerow habitat occurring within the Proposed Development boundary.

RE: While timelines for monitoring surveys are proposed there is no timeline provided For implementation of the proposed measures nor are there any milestones or points in time provided for achieving the stated objectives of restoration and enhancement.

See Table 3.4.1 above which sets out timelines for the achievement of targets.

Table 6.2 of the HMP under timing clearly sets out the timelines for monitoring surveys e.g., Monitor during Years 1, 2, 3, 5, 7, 10, 15, 20, 25, 30, 35 & 40 of the operation phase etc.

The HMP sets out a requirement for Monitoring Reports to be published at the end of each year of monitoring. The Monitoring Report will set out the findings of the monitoring and any recommendations that are required in order to achieve the HMP targets. As such, each yearly round of monitoring can be considered to be a milestone or point in time that reviews the achievement of the stated objectives for restoration and enhancement.

FuturEnergy Ireland Observation Item 4:

"2.3 Sensitive Receptor

The Proposed Wind Farm has an occupied residential property within 360m of a proposed turbine (Deed of Covenant Appendix 2.3).

The 2006 WEOGS in Section 5.6, Noise, states that "[i]n general, noise is unlikely to be a significant problem where the distance from the nearest turbine to any noise sensitive property is more than 500 metres". Conversely, a property within 500m could present a significant potential noise nuisance risk to the occupants.

The Deed of Covenant signed by the owner of the aforementioned residential property commits to securing vacant possession of the property from a current tenant, who has had occupancy since 2012. There is also a current planning application for change of use of the property, which has been refused by Waterford County Council (File Reference 221073) and is pending an appeal with An Bord Pleanála (Case 316060).

The current occupation of the residential property and the legal rights of any tenant, including their right to renew their tenancy, raises a question as to whether this property can be confidently excluded as a sensitive receptor, under best practice guidance."

FuturEnergy Ireland Observation Response 4:

Based on the initial layout, potential noise-sensitive receptors, including occupied and un-occupied dwellings, were identified from maps. Receptor locations were verified through visits to the area surrounding the Proposed Development and through a planning search of the area. Based on the intended change of use of the receptor (Waterford Reg. Ref. 221073) from residential to commercial and deed of covenant (**EIAR Appendix 2.3**) the structure located approximately 320m from turbine was not included as a noise sensitive receptor.

Since the application has been launched on the 3rd May 2024 An Bord Pleanála (Case No. ABP-316060-23)¹¹ granted planning permission for the Change of use of building from a dwelling house to office accommodation together with all ancillary site works and services. This property will not be a residential property when the proposed development is in operation.

3.5 FÁILTE IRELAND

Received on 2nd August 2023.

Fáilte Ireland Observation Item 1:

"1.0 Introduction

As a prescribed body in the planning process, one of the main objectives of Fáilte Ireland is to advocate for the protection of key tourism assets and amenities. The Irish landscape is one of the primary assets for tourism in the country and has been the cornerstone of international tourism marketing campaigns for decades. International visitors to Ireland consistently rate scenery as an important reason for their trip. Therefore, as the Irish landscape is one of the primary reasons for visiting the country, it is essential that the quality, character and distinctiveness of this valuable resource is protected.

Equally Fáilte Ireland recognises the importance of developing the State's renewable energy sector. In this regard Fáilte Ireland has been supportive of and contributes to the preparation and adoption of the Wind & Renewable Energy Strategies for counties across the Country. These Strategies have provided invaluable guidance to Applicants, Shareholders and Planning Authorities alike in identifying potential sites and in assessing the potential for

¹¹ <https://www.pleanala.ie/en-ie/case/316060>

development of appropriately located renewable energy infrastructure. Within the hierarchy of plans, these Strategies have ensured that the development of renewable energy infrastructure, such as wind farms, is plan-led and can be located to avoid, or minimise disproportionate negative impacts on other land uses, including tourism- related uses and the receiving environment.”

Fáilte Ireland Observation Response 1:

Fáilte Ireland published guidelines in 2011 for the treatment of tourism in an EIAR, which describes the effects of projects on tourism. These guidelines were considered in the preparation of the EIAR.

The potential effects on tourism as a result of the Proposed Development have been assessed in **EIAR Chapter 5: Population and Human Health**, it is noted that supporting aspects that are intrinsically linked to tourism, such as landscape and visual amenity and cultural heritage, are also considered and assessed in Chapters 11 and 13 of the EIAR.

Based on the findings of the collective assessments, it is considered that the Proposed Development will not give rise to any significant effects. Overall effects of the Proposed Development with regards to tourism are considered to be **short-term, slight, negative** during both construction and decommissioning phases and a long-term, **slight positive** impact during operation.

Fáilte Ireland Observation Item 2:

“2.0 Visitor Attitudes

While supporting the development of wind energy infrastructure, subject to proper planning and environmental requirements being met, the position of the Fáilte Ireland is also informed by research on visitor attitudes.

In 2007 Fáilte Ireland commissioned an independent study looking at visitor attitudes to wind farm developments in the Republic of Ireland¹². The study was updated in 2012. A further study was undertaken in 2018 on Visitor Awareness and Perceptions of the Irish Landscape. This provides up to-date information on which we can base an informed assessment of the likely impact of a wind energy development on the tourism potential of an area. The key findings of the 2012 & 2018 studies are summarised as follows:

- *Over half saw at least one wind farm in 2012 compared with under half in 2007 and more groups of wind turbines were detected as opposed to just one, as in 2007. Awareness of*

¹² https://www.failteireland.ie/Failteireland/media/WebsiteStructure/Documents/3_Research_Insights/4_Visitor_Insights/Visitor-Attitudes-on-the-Environment.pdf?ext=.pdf

the existence of wind farms was higher among domestic visitors. As in 2007, in 2012 most wind farms were seen at a distance from the car. However, 2012 saw an increase in the number of farm sightings.

- More visitors saw turbines at closer proximity than on the horizon in 2012, versus 2007. Mountain moorland areas were the most prevalent sites where wind farms were seen. Sightings at coastal areas have reduced significantly. Impacts on sight-seeing were less positive in 2012, with a sharp rise in both negative and 'no impact' views compared with 2007. Those on countryside breaks, not on activity breaks and over 65s were most negative about wind farms being present when sight-seeing.*
- The majority of participants favour small groups of large turbines over large groups of small turbines. When given a choice of groups of 5 or 25 turbines or 2 clusters of 10, the site with 5 turbines scored most positively or neutrally in 2012.*
- In 2012, seventy-one per cent stated that wind farms have either a positive or 'no impact' on their likelihood to visit Ireland, while just 24% are averse, leaving 5% saying 'it depends'.*
- In general, participants were most strongly averse to the construction of wind farms at coastal areas, followed by fertile farmland, in 2012.*
- In 2018, the results from a major study by Fáilte Ireland on tourism and landscape found that the majority of visitors appeared not to notice the majority of developments – even very large and visually prominent structures such as wind turbines and powerlines. It appears that there are significant divergences between what can be seen and what is noticed. The majority of visitors expressed very limited desire to change developments that they do notice. The majority of visible development does not appear to have any adverse effects on the impression of the quality of the landscape.*

Fáilte Ireland Observation Response 2:

Visitor attitudes:

The findings of the Failte Ireland Surveys were considered as part of the assessment of Population and Human Health and it is noted that these results are encouraging from a tourism perspective as many tourists who visit Waterford are from the domestic market which accounted for 1,795,000 visits in 2019. Per the findings of the referenced studies, over three quarters of participants are positively disposed to windfarms in Ireland. Interpreted on a broader level the results of the study suggest the development of windfarm infrastructure,

such as the Proposed Development, is unlikely to have a significant impact from a tourism related perspective.

Fáilte Ireland Observation Item 3:

"An EIAR has been submitted with the Development. Tourism and impact on tourism is addressed in Chapter 5 Population and Human Health of the EIAR. The baseline or receiving tourism environment is described in Section 5.4.5, with reference to the Waterford City and County Development Plan 2022-2028, to tourist attractions and to studies on public perception of wind farms.

In discussing the Waterford City and County Development Plan 2022-2028, the description notes one of the strategic objectives in Chapter 4: Economy, Tourism, Education and Retail, however, there is no or limited discussion of other key objectives, including Tourism Policy Objectives ECON 22 to ECON 30 under Section 4.10 Sustainable Tourism.

Despite the location of the Development on the boundary with County Tipperary, tourist-related policies and objectives as set out in Chapter 9 of the Tipperary County Development Plan 2022-2028 are not referenced or discussed.

Likewise, there is a lack of detail on the location, nature and sensitivity of the tourist attractions/amenities potentially impacted by the Development and no mapping is provided of the tourist attractions/amenities or tourism characteristics in the area.

It is also noted that other tourism-related publications, including 'The Waterford City and County Council Tourism Statement of Strategy and Work Plan 2017 – 2022'¹³ or the 'Rural Waterford Visitor Experience Development Plan 2021-2023'¹⁴ are not referenced.

The assessment of the impact of the Development on Tourism is addressed at Section 5.5 of Chapter 5 of the EIAR. However, the assessment appears to rely solely on the landscape and visual assessment presented in Chapter 11 of the EIAR, with no detailed assessment of the likely impact, if any, on the tourist attractions, their tourist resources and their sensitivities.

Therefore, we would ask that An Bord Pleanála in their assessment consider:

- the description of the baseline tourism environment,*
- the tourist-related policies and objectives of the Waterford City and County Development Plan 2022-2028,*
- the tourist-related policies and objectives as set out in Chapter 9 of the Tipperary County*

¹³ https://www.waterfordcouncil.ie/media/plans_strategies/tourism/WATERFORD%20Tourism%20Statement%20of%20Strategy.pdf

¹⁴ <https://www.waterfordcouncil.ie/media/economic-development/Rural%20Waterford%20Visitor%20Experience%20Development%20Plan.pdf>

Development Plan 2022-2028,

- *the objectives of other local and regional tourist development publications, and*
- *the likely impact of the Development on local tourist attractions in County Waterford and County Tipperary.*

Fáilte Ireland Observation Response 3:**Fáilte Ireland Guidelines in the preparation of the EIAR**

It is important to note Fáilte Ireland is not objecting to the proposed development. Fáilte Ireland published guidelines in 2011 for the treatment of tourism in an EIAR, which describes the effects of projects on tourism. These guidelines were considered in the preparation of the EIAR as referenced in Chapter 5 Population and Human Health.

With respect to Waterford CDP tourism Objectives ECON 22 to ECON 30 in relation to Sustainable Tourism and the documents 'The Waterford City and County Council Tourism Statement of Strategy and Work Plan 2017 – 2022' and 'Rural Waterford Visitor Experience Development Plan 2021-2023' these objectives were not included in the Planning Statement or the EIAR as these policies relate to the provision of tourism infrastructure and planning for areas which are east and south of the Proposed Development. The Applicant will invite Further Information on this point. Please see section 2.6 on the Tipperary CDP concerns.

The Effects of Wind Energy Developments on Tourism

Tourist attractions within Study Areas 1 (Proposed Development Site and Environs (within 10 km), 2 (Waterford County) and 3 (Tipperary County) have been identified in EIAR Section 5.4.5.2. The tourism numbers and revenue for the counties of Waterford and Tipperary are also included in this section.

EIAR Section 5.4.5.3 and EIAR Section 5.4.6 detail multiple surveys which give context to the attitudes of visitors to windfarms. This includes the following:

- Public acceptance of new renewable electricity survey 2021.
- Scottish Tourism Survey 2016.
- Fáilte Ireland Surveys 2007 and 2012.
- Sustainable Energy Ireland Survey 2003.
- Interactions Survey 2017, Published by SEAI.
- IWEA Interactions Opinion Poll on Wind Energy 2020.

Fáilte Ireland itself published a study on 'Visitor Attitudes on the Environment' in 2012¹⁵ to assess the perceived impacts of windfarms on potential future visits to an area. The study found that 12% of those surveyed, responded that windfarms would have 'a strong positive impact' on their decision to visit Ireland, with 27% responding it would have a 'slight positive impact', whilst 38% said it would have 'no impact'.

The findings of the BiGGAR Economics report (Scottish Tourism Survey mentioned in Chapter 5 - Population & Human Health Section 5.3.5 of the Dyrick Hill Wind Farm EIAR) state that there is not expected to be any direct relationship between the tourism sector growth and this Proposed Development.

'Although this study does not suggest that there is any direct relationship between tourism sector growth and windfarm development, it does show that wind farms do not cause a decrease in tourism employment either at a local or a national level.'

EIAR Section 5.6.7 highlights that, with the implementation of embedded mitigation, no significant effects have been identified in respect of tourist receptors arising from the construction of the Proposed Development.

Based on the findings of the collective assessments, it is considered that the Proposed Development will not give rise to any significant effects. Overall effects of the Proposed Development with regards to tourism are considered to be **short-term, slight, negative** during both construction and decommissioning phases and a long-term, **slight positive** impact during operation.

Should additional information be required on this point, the Applicant will invite Further Information from An Bord Pleanála.

3.6 **DEPARTMENT OF DEFENCE (IRISH AIR CORPS, CASEMENT AERODROME)**

Department of Defence Observation:

All turbines should be illuminated by Type C, Medium intensity, Fixed Red obstacle lighting with a minimum output of 2,000 Candela to be visible in all directions of azimuth and to be operational H24/7 days a week.

Obstacle lighting should be incandescent or, if LED or other types are used, of a type visible to Night Vision equipment. Obstacle lighting used must emit light at the near Infra-Red (IR) range of the electromagnetic spectrum, specifically at or near 850 nanometres (nm) of

¹⁵ Fáilte Ireland (2012) Visitors Attitudes on the Environment – Wind Farms - [https://www.failteireland.ie/Failteireland/media/WebsiteStructure/Documents/3_Research_Insights/4_Visitor_Insights/WindFarm-VAS-\(FINAL\)-\(2\).pdf?ext=.pdf](https://www.failteireland.ie/Failteireland/media/WebsiteStructure/Documents/3_Research_Insights/4_Visitor_Insights/WindFarm-VAS-(FINAL)-(2).pdf?ext=.pdf) [Accessed: 11/04/2024]

wavelength. Light intensity to be of similar value to that emitted in the visible spectrum of light.

Any Irish Air Corps (IAC) requirements are separate to Irish Aviation Authority (IAA) requirements.

Department of Defence Observation Response

This has been noted and all conditions will be complied with in the event that planning permission is granted.

3.7 IRISH PEATLAND CONSERVATION COUNCIL

Irish Peatland Conservation Council Observation Item 1:

"1. Peat:

The IPCC do not accept that there is no peatland in the area, A, there is Article 17 Dry Heath present, B, The peat depth probes show that there is 0 -40cm deep peat in places. 30cm is the standard definition for classifying peatland but this classification was based on what would be profitable economically to extract industrially when mapping resources for exploitation, a better method for conservation and protection of habitats is to use at least 30% organic matter content (IUCN Peatland Programme, June 2023), Out of 49 countries investigated within Europe 17 countries do not use depth to classify peatland, 26 use 30cm or less and only 6 use 40cm or more. It is not possible to estimate the actual carbon and biodiversity cost of the Development if the peatland is not classified correctly, the actual organic content needs to be established. It is possible that peatland habitats being misclassified would give the wrong figures on carbon loss and cumulative impacts to the future carbon sequestration ability of the landscape. This seems to be a serious loophole in planning and is allowing developments to decide where conservation of important globally rare habitats occurs."

Irish Peatland Conservation Council Observation Response 1:

The Geological Survey of Ireland (GSI) and Environmental Protection Agency (EPA) mapping tools were consulted during the desk study for Chapter 8 – Soils & Geology of the EIAR to inform the baseline assessment. It is noted that neither the GSI quaternary sediment map nor the Teagasc Soil maps identify peat with the Proposed Development boundary. Site specific investigations were also carried out and included 347 peat probes and were observed by an experience geotechnical professional. No peat was encountered on the site although it is noted that peaty topsoil (peaty podzols and peaty gleys) was observed to depths of up to 0.4m in some locations. While it is noted that the Scottish Government carbon calculator tool

only considered depths of peat >0.5m, the Proposed Development will not directly or indirectly disturb any peat and, consequently, it was not considered in carbon calculations.

Assessments were carried out to estimate the carbon saving over the lifetime of the wind farm, compared to electricity produced using fossil fuel. The assessment of carbon savings relates to the capacity of the wind farm over the number of years for which it is operational, site improvement works, (i.e., peatland improvement, habitat creation, etc.), forestry felling, and site restoration works, (i.e., removal of infrastructure and restoration of previous site conditions), when the wind farm will be decommissioned.

The model calculates the total carbon emissions associated with the Proposed Development including manufacturing of the turbine technology, transport, construction of the Proposed Development and tree felling. The model, which is assessed for both the lower range (6.0 MW) and the higher range (7.2 MW), accounts for the HMP and the years taken for the site to return to its original and recycling of turbine equipment. It is estimated that 3,364,260 to 3,714,144 tonnes of carbon dioxide will be displaced as a result of the Proposed Development over its lifetime.

Irish Peatland Conservation Council Observation Item 2:

"2. Nitrogen:

While nitrogen is featured and accessed as part of the Development investigations and reports, the preliminary focus has been on designated sites (and human health) and not on the non-designated directly surrounding environment, even though much of the site is within ANNEX I Dry Heath (4030) habitat (which would be nutrient poor and susceptible to wet and dry deposition). IPCC appreciate the investigation into the water courses as vectors for nitrogen deposition and possible impacts to the designated sites including neighbouring fen habitats, but we also need to know nitrogens predicted cumulative effects on the direct receiving environment too, such as the increased vehicular use once construction has finished, surrounding agricultural activities, industrial extraction (e.g quarries/peat extraction/mines), development of road infrastructure and how will all these react together? What impacts will these have on the Dry Heath habitat?"

Irish Peatland Conservation Council Observation Response 2:

The main potential sources of nitrogen associated with the Proposed Development are associated sediment laden run off both during construction and operational phases (although it is noted that vehicular use of the site during operations will be limited to that required for routine monitoring and maintenance). Potential direct impacts to habitats are unlikely due the embedded mitigation of proposed site drainage network in addition to the best practice measures included in the CEMP which will promote settlement of solids prior to discharge to land.

The potential for nitrogen's associated with exhaust emissions, is considered in Chapter 16: Air and Climate of the EIAR which notes that the construction phase is likely to lead to small localised increases in these emission levels which is likely to lead to a temporary imperceptible effect. Such an effect will in turn be imperceptible for the vegetation associated with the Annex I dry heath habitat occurring within and surrounding the Proposed Development.

Irish Peatland Conservation Council Observation Item 3:

"3. Natura Impact Statement:

It is not acceptable to lose any amount of habitat for species ANNEXED under the EU Habitats and Species Directives or on national Red-Lists. While the developers have accepted that 0.1% loss of suitable habitat for Golden Plover and a 0.12% increase in mortality rate is quite fine, they are failing to address the Biodiversity part of the Climate Change and Biodiversity Crisis announced by Government in 2019 and our international legal obligations to protect these species. They are failing to address the cumulative and synergistic impacts as to what is the effect on biodiversity when you add all the increased mortality rates (including Lapwing, Ireland's National bird), habitat losses, barriers to movements, effects on nocturnal migrations, future restoration potential, ongoing hydrological management/drainage, fragmentation from infrastructure and disturbance Ireland is working backwards when installing renewable energy infrastructure on to our wetlands and peatlands as they are some of the most rarest habitats in Europe and the World. There is plenty of monoculture agricultural land suitable for renewable energy developments which would be better suited and have a more manageable cost in terms of habitat."

Irish Peatland Conservation Council Observation Response 3:

The Proposed Development will result in the loss of dry heath habitat that will, over the short time represent a significant effect. However, with the successful implementation of the HMP the Proposed Development stands to contribute towards the delivery of a net increase in the favourable range of dry heath habitat within Ireland. This is identified as a potential positive effect for the range and distribution of this habitat in Ireland. Also refer to section 3.1 (which provides a detailed response to DAU).

3.8 TRANSPORT INFRASTRUCTURE IRELAND

Transport Infrastructure Ireland Observation Item 1:

"Official Policy

The Board will be aware that official policy concerning development management and access to national roads is outlined in the Section 28 Ministerial Guidelines 'Spatial Planning and National Roads Guidelines for Planning Authorities' (DoECLG, 2012).

Section 2.5 of the DoECLG Guidelines sets out policy that seeks to avoid the creation of additional access points from new development or the generation of increased traffic from existing accesses (i.e. non-public road access) to national roads, to which speed limits greater than 50 kph apply,

In that regard, the Authority acknowledges that access to all turbine locations is facilitated via the regional road network in the first instance prior to access to the national road network."

Transport Infrastructure Ireland Observation Response 1:

The design is such that there is no direct access to a national road in accordance with Section 2.5 of the DoECLG, 2012 Guidelines.

Transport Infrastructure Ireland Observation Item 2:

"National Road Network Maintenance and Safety

In addition to the above, there are a number of operational issues related to the subject windfarm development proposal, in the Authority's opinion, that are required to be resolved to address concerns relating to network maintenance and road safety prior to any decision on this planning application. In that regard, issues concern the proposed turbine component haul route to site and the grid connection to the Dungarvan 110kV Substation which both impact the strategic national road network."

Transport Infrastructure Ireland Observation Item Response 2:

All issues raised concerning the proposed turbine component haul route to site and the grid connection to Dungarvan 110kV substation are addressed below.

Transport Infrastructure Ireland Observation Item 2.1:

"Proposed Turbine Haul Route

In relation to the proposed Turbine Component delivery to site, Section 2.5.4 of the EIAR outlines the Turbine Component Haul Route to site from the port of entry at Belview via the N29, N2S and N72, national roads. Section 14.3.1 of the EIAR confirms that detailed analysis of the proposed turbine haul route was undertaken and is set out in Appendix 14.1 (Abnormal Indivisible Load Route Review).

Appendix 14.1 outlines proposed temporary works impacting the national road network at the following locations.

- *N29 Slieverue Roundabout*
- *N25 Luffany Roundabout*
- *N25 Carrick Road Roundabout*
- *N25/N72 Junction*
- *N72/R672 Junction*
- *N72/R672 Junction (Master McGraith Monument)*

The national road network is managed by a combination of PPP Concessions, Motorway Maintenance and Renewal Contracts (MMaRC) and local road authorities. The section of national road being traversed which includes the N25 Slieverue Roundabout, the N25 Luffany Roundabout and the N25 Carrick Road Roundabout is within the N25 Waterford Bypass PPP Contract Area and is managed and operated by the PPP Concession (Celtic Roads Group (Waterford Ltd.))

The applicant/developer should consult with all PPP Companies, MMaRC Contractors and road authorities over which the haul route traverses to ascertain any operational requirements such as delivery timetabling, etc. and to ensure that the strategic function of the national road network is maintained.

Any proposed works to the national road network to facilitate turbine component delivery to site shall comply with TII Publications and shall be subject to Road Safety Audit as appropriate. Works should ensure the ongoing safety for all road users and prior to any development necessary licenses, approvals or agreements with PPP Concessions, Motorway Maintenance and Renewal Contracts (MMaRC) Companies and local road authorities, as necessary, shall be in place.

TII requests referral of all proposals agreed between the road authority, PPP Concessions and MMaRC Companies and the applicant impacting on national roads. Mitigation measures identified by the applicant should be included as conditions in any decision to grant permission.

Any damage caused to the pavement of the existing national road due to the turning movement of abnormal 'length' loads (e.g. tearing of the surface course) shall be rectified in accordance with TII Pavement Standards and details in this regard shall be agreed with the Road Authority prior to the commencement of any development on site."

Transport Infrastructure Ireland Observation Response 2.1:

The Applicant agrees to all terms brought forward in the TII observation whether as a planning condition or otherwise and ensure:

- All proposals will be referred to TII.
- The ongoing safety for all road users will be ensured.
- All necessary licenses will be obtained.
- All approvals or agreements will occur prior to any development.
- All PPP Companies, MMarC Contractors and road authorities will be consulted with. Details with the Road Authority will be agreed prior to commencement of any development in relation to the rectification of any damage to the pavement in accordance with TII Pavement Standards.

Transport Infrastructure Ireland Observation Item 2.2:

"Abnormal Weight Loads

While abnormal 'oversized' loads are addressed in the EIAR in the context of turbine component haul route proposals, no details appear to be included in the EIAR related to abnormal 'weight' loads,

Any operator who wants to transport a vehicle or load whose weight falls outside the limits allowed by the Road Traffic (Construction Equipment & Use of Vehicles) Regulations 2003, SI 5 of 2003, must obtain a permit for its movement from each Local Authority through whose jurisdiction the vehicle shall travel.

The Authority considers that it is critical a full assessment by the applicant/developer of all structures on the national road network along the haul route should be undertaken, where relevant, and all road authorities along the haul routes should confirm their acceptance of proposals by the applicant.

The Authority has reviewed the EIAR documentation referred and is concerned that no technical load assessment of structures appears to have been undertaken in support of this proposed application. However, it is acknowledged that abnormal weight loads may not be a feature of the Development.

The Authority considers that it is critical a full assessment by the applicant/developer of all structures on the national road network along the haul route should be undertaken, where relevant, to confirm that all structures can accommodate the proposed loading associated with the delivery of turbine and substation components to site where the weight of the delivery vehicle and load exceeds that permissible under the Road Traffic Regulations.

The Authority requests referral of all proposals agreed between the road authorities and the applicant impacting on national roads."

Transport Infrastructure Ireland Observation Response 2.2:

Details of the turbine components and typical abnormal load transport vehicles are shown in Section 2.2 of the haul route report carried out by Pell Frishmann Ltd. The report is included in Appendix 14.1. of the EIAR. As is best industry practice, delivery vehicles shall use a combination of trailers and axle configurations based on the weight and dimensions of the load in order to ensure that the maximum axle weight transmitted to the road surface does not exceed the limits set out in the Road Traffic Regulations 2003.

Transportation of abnormal loads will be subject to abnormal load permits obtained by the haulier who will submit details of the transport vehicle, load to be transported and transport route to An Garda Síochána and to the local authority through which the load will pass. Load assessments of bridges along the proposed haulage route will be completed and temporarily reinforced where required to support abnormal loads.

Prior to the transportation of turbine components between the port and the Proposed Development, a trial run shall be carried out using a delivery vehicle using a retractable load gauge in order to determine that fully loaded vehicles can access the site. The trial run shall be carried out using appropriate permits in consultation with An Garda Síochána and all relevant road stakeholders.

Transport Infrastructure Ireland shall be included in all correspondence relating to the transportation of turbine components.

Transport Infrastructure Ireland Observation Item 2.3*Grid Connection Routing*

Section 2.2 of the EIAR outlines that the Development also includes proposals for the connection of the wind farm to the national electricity grid via a 110kV underground cable connection approximately 16km in length to the existing Dungarvan 110kV Substation. approx. 1.2km of the grid connection routing is proposed within the N72, national road.

Drawing Sheet No. 05829-DR-101 outlines the extent of works to the section of N72, national road, impacted, including the grid connection routing, Joint Bays 1 and 2 and a HDD crossing of the River Colligan in the vicinity of Kildangan Bridge which is a national road structure (TII Structure ID: WC-N72-007.00). TII has not agreed nor consented to any works in the national road.

The works outlined have the potential to significantly impact the levels of safety and strategic function of the national road network in this area, The Board will also note that this Issue was brought to the attention of the application team in the course of EIAR Scoping and TII advised that alternatives to grid connection routing in the national road should be identified.

In accordance with the National Planning Framework National Strategic Outcome no. 2 'Enhanced Regional Accessibility', there is a requirement to maintain the strategic capacity and safety of the national road network. This requirement is further reflected in the National Development Plan, the National Investment Framework for Transport in Ireland and also the existing Statutory Section 28 Spatial Planning and National Roads Guidelines for Planning Authorities.

TII has identified a number of significant implications for TII and road authorities in the management and maintenance of the strategic national road network resulting from the laying of high voltage electricity cabling in the national road reservation, including.

- Impacts on embankments, bridges, drainage and road furniture infrastructure leading to future maintenance liabilities,*
- Impediments to future maintenance and operations activities, such as safety barrier repair and French drain renewal,*
- Impediments to future routine network improvements such as pavement overlay and strengthening, installation of new verge-side signs and other road furniture,*
- Impacts on network traffic flows during installation,*
- Impediment to future on-line upgrades of national roads because of the implications to road authority/TII in having to incur the additional costs of moving underground cables in order to accommodate the road improvements.*

In addition to the foregoing, it does not appear that the impact on traffic flows, delays, etc. of necessary traffic management measures to facilitate construction in the N72, national road, has been considered in any detail in the EIAR.

TII is also concerned with what appears to be a significant lack of co-ordination in grid connection proposals in the vicinity. TII is aware of a permission, notwithstanding the recommendations of TII on the relevant application, for grid connection routing along this section of N72, national road, granted under ABP Case Ref. PL93.311670 following an appeal against the decision of Waterford City and County Council to initially refuse the application under ref. 21/735 (Sunrise Energy Supply Limited).

In addition to the foregoing, TII notes proposals for grid connection routing by HDD crossing in the vicinity of Kildangan Bridge which is a TII Structure (Structure ID: WC-N72-007,00) and TII has not confirmed any acceptance for the proposals related to TII Structures included in the subject application.

There are Technical Acceptance requirements relating to modification or works impacting TU Structures and insufficient information has been provided in the subject application to demonstrate that the proposed works can be accommodated in the manner proposed. TU recommends identification of an alternative grid connection routing avoiding Impact to

national roads and associated structures in the interests of safeguarding the Investment in and levels of safety on the strategic national road network in accordance with the provisions of official policy.

Transport Infrastructure Ireland Response Item 2.3

The design team acknowledge the TII consultation response during the design process and have utilised the regional and local road network to minimise works on the national road network. The underground grid connection route has been selected on the basis of the shortest route along the road network between the Proposed Development and the Dungarvan 110kV substation, reducing the overall cable length within public roads and water course crossings.

The layout and alignment of the 110kV grid connection works on the N72 national road is shown on TLI drawings 05829-DR-101 (Layout Plan) and 05829-DR-102 (Layout Plan). Details of the cable trench and ducting are shown on 05829-DR-169 (Trench Detail), 05829-DR-161 (Joint Bay) and 05829-DR-162 (comms chamber). Details of the proposed Colligan River crossing are shown on TLI Drawing 05829-DR-101 (Layout Plan) and 05829-DR-164 (Section Detail). It is proposed to use horizontal directional drilling at Colligan River crossing on the N72 in order to minimise impact to the national road network, i.e. the bridge structure will not be used to accommodate the grid connection.

The grid connection works will be carried out in consultation with TII and Waterford County Council to optimise the location of the grid connection in order to facilitate the maintenance of the existing road infrastructure and to facilitate future upgrade works to the road alignment, road operation and safety systems.

The design team has considered the potential for driver delay during the construction of the 110kV grid connection on the national road network. A traffic analysis for the use of temporary traffic lights during grid connection works on the N72 and R672 is included in Section 14.5.8 (Driver Delay) of the Traffic chapter of the EIAR. The analysis shows that delays of 40 to 50 seconds can be expected at the temporary traffic lights on the N72 during the grid connection works during construction. The grid connection works on the N72 are approximately 1.3km long and are expected to progress at a rate of 100m per day. During the trenching works the grid connection works will generate 12 HGV arrivals and 12 HGV departures at the works area on a daily basis. Details of HGV trips generated by the Proposed Development construction and grid connection works are detailed in section 14.5 of the EIA traffic chapter.

Transport Infrastructure Ireland Observation Item 2.4:**"Greenways**

In relation to any Greenway or Active Travel proposals in the vicinity of the proposed works, consultation with Waterford City and County Councils own internal project and/or design staff is recommended."

Transport Infrastructure Ireland Response Item 2.4:

Prior to construction, the developer will consult with Waterford County Council to check if there are any emerging active travel projects which need to be respected in the layout of the grid connection.

Transport Infrastructure Ireland Observation Item 2.5:

TII notes reference to the NRA DMRB (Design Manual for Roads and Bridges) In Section 14.2.2 Table 14,1 of the EIAR and advises that the NRA DMRB has been superseded by TII Publications (www.tiipublications.ie) which contains all relevant standards relating to national roads.

Transport Infrastructure Ireland Response Item 2.5:

All relevant publications have been consulted in the design of the traffic and transport infrastructure and the grid connection. Prior to the construction, such publications will again be reviewed such that the works will implement to all relevant up to date standards and details will be submitted and agreed with TII and Waterford County Council prior to construction.

3.9 TIPPERARY COUNTY COUNCIL**Tipperary County Council Observation Item 1:**

Table 6.1 of Volume 3 sets out the controls for managing development in this area. It aims to control unavoidable new developments unless they can demonstrate capacity to sustain existing appearance and character. Table 6.2 notes that the Knockmealdown Mountain Mosaic area has low compatibility with multiple turbine scheme."

Tipperary County Council Observation Response 1 (Landscape):

Landscape and Visual Amenity have been assessed in **EIAR Chapter 11**. EIAR Section 11.3.6.1 TCDP – Volume 3: Tipperary Landscape Character Assessment details the Tipperary County Development Plan (TCDP) 2022-2028 with respect to Landscape

Character Type (Primary and Secondary Amenity Areas) and in particular the landscape character area '23 – Knockmealdown Mountain Mosaic'.

The guideline suggested for the 'vulnerable' sensitivity designation is to "*Control unavoidable new developments or uses, or the intensification or expansion of established patterns of use and settlement – **unless they can demonstrate capacity to sustain existing appearance and character.***"

The proposed turbines are viewed in the most cases in the opposite direction to the main aspect of scenic amenities and do not block or obstruct other sensitive viewing aspects. Even where clearly visible from some of the highly scenic view designations in the wider surrounds of the Study Area, the proposed turbines will appear well accommodated in terms of their scale and function in this foothill landscape and will not result in a notable detracting in the scenic amenity of the wider landscape, which is currently influenced by a range of other anthropogenic land uses including existing wind energy development, major routes and extensive areas of commercial conifer forestry.

Due to the highly anthropogenic features (mentioned above) within the immediate study area and with the full implementation of the mitigation measures proposed in the EIAR, it is not considered that there will be any **significant effects** on landscape and visual amenity, including **Landscape Character Type**, arising from the Proposed Development.

The Landscape and Visual Amenity have been assessed in **EIAR Chapter 11** and outlines the Landscape Character which includes the Knockmealdown Mountain Mosaic will not be significantly affected by the Proposed Development. This demonstrates capacity to sustain existing appearance and character as outlined in the guideline.

Tipperary County Council Observation Item 2 (Renewable Energy Strategy):

The sensitivity of this area is acknowledged in the Renewable Energy Strategy for Tipperary as set out in Volume 3 Appendix 2 of the County Development Plan. The Uplands area to the south of the County was deemed to be unsuitable for new wind energy developments. A review of the Waterford City and County Council Development Plan 2022 — 2028 shows that the part of the Knockmealdown mountains within Waterford County Councils administrative area is also unsuitable for wind energy proposals.

It is a policy of the Tipperary County Development Plan 2022 (11-16) to

Facilitate new development which integrates and respects the character, sensitivity and value of the landscape in accordance with the designations of the Landscape Character Assessment, and the schedule of Views and Scenic Routes (or any review thereof).

Developments which would have a significant adverse material impact on visual amenities will not be supported.

While not within the administrative area of Tipperary, the Local Authority has a concern, by reason of the nature of the proposal and its proximity to sensitive landscapes that are protected from inappropriate development, with the visual impact of the works proposed on the setting and character of sensitive landscapes in Tipperary."

Tipperary County Council Observation Response 2:

As previously outlined in section 2.7 of this document, The Tipperary Council Renewable Energy Strategy 2022-2028 is included as Appendix 2 of the Tipperary County Development Plan 2022-2028. The strategy is premised on 2020 renewable targets and is clearly outdated in terms of current renewable energy policy. The council did not follow recommendations from the OPR to include recommendation 11 which required evidence-based MW targets. It is evident that the Tipperary Council LARES is not appropriate in the context of current regional, national and European renewable energy and climate resilience policy.

The Proposed Development turbines are located just over 1km south of the Waterford – Tipperary border, and therefore, consideration has been given to wind energy policy within Tipperary within the EIAR. Please see details in EIAR Section 11.3.6.2 TCDP – Volume 3: Tipperary Renewable Energy Strategy 2016.

The TCDP Renewable Energy Strategy identifies two areas in relation to wind energy development which are outlined below:

- i. **Areas 'Open for Consideration' and**
- ii. **Areas 'Unsuitable for Further Development'**

The Site is situated to the southeast of an area designated as 'Unsuitable for New Energy Development' in the TCDP, as identified in the EIAR. The designated area is situated across the southernmost parts of County Tipperary along the Knockmealdown Mountains and their surrounding foothills.

A 'Zone of Theoretical Visibility' (ZTV) was established for the assessment (EIAR Figure 11.9 of **EIAR Chapter 11: Landscape and Visual Amenity**). Whilst some areas of comprehensive ZTV pattern are located to the west of the site in the surrounds of the Glenshelane River valley and along some elevated hilltops and ridges, the ZTV pattern tends to become more sporadic in the western half of the central Study Area due to the variation and complexities in the landforms in the surrounds of the Knockmealdown Mountains.

Views of recognised scenic value were identified from the Waterford and Tipperary County Development Plans, tourist maps, guidebooks, roadside rest stops and postcards that

represent specific highly scenic areas. All of the scenic routes and views in both Waterford and Tipperary that fall inside the ZTV pattern were investigated during fieldwork to determine whether actual views of the proposed wind farm might be afforded. Photomontage booklets were prepared to show these viewpoints as a demonstration of the potential visual effects of the Proposed Development on the landscape. In the central study area, there are three Co Tipperary scenic views, none of which traverses the Proposed Development:

- View 17: Views south along Ardfinnan – Clogheen road (R665)
- View 37: Views South over River Suir Valley from Marlfield – Knocklofty Road
- View 38: View on the Cahir approach road to Clonmel looking southeast to lands north of Marlfield and west of the town.

EIAR Chapter 11 summarises that:

“It is not considered that there will be any significant effects on landscape and visual amenity arising from the proposed Dyrick Hill Wind Farm.” and that

“Based on the landscape, visual and cumulative assessment contained herein, it is considered that there will not be any significant effects arising from the proposed Dyrick Hill Wind farm.”

Landscape and visual impacts have been identified, assessed and considered in the EIAR. Through the process of assessment, embedded mitigation, and additional proposed mitigation outlined in the EIAR, it has been shown that the Proposed Development can be constructed and operated without significant effects arising. This demonstrates the acceptability of the proposal in terms of visual impact.

Furthermore, planning applications are to be determined on their individual merits with due consideration given to the overall planning balance of a scheme. While many development proposals will encompass both positive and negative aspects that require consideration, planning weight should err on the side of a ‘presumption in favour of development unless material considerations indicate otherwise’ as per paragraph 11 of the National Planning Framework.

The Proposed Development contributes to supplying the national demand for renewable energy which, in the context of the ongoing climate emergency, is an urgent Irish national priority.

The Planning Statement which accompanies the application also outlines how the Proposed Development is compliant with International, European and National policy on energy security, emissions reductions and renewable energy production. It reviews policy for the southern region and local Waterford and Tipperary County policy and finds the Proposed Development is in line with key renewable energy and environmental policy objectives. The

Proposed Development also meets the definition of Sustainable Development as defined by the National Planning Framework in terms of the three sustainability pillars: Economy, Environment and Social.

The Applicant invites the Board, to grant permission in material contravention of the County Development Plan. For example "Under section 37G(2)(c), the Board is required to consider the provisions of the development plan or plans for the area. However, as per section 37G(6) the Board can still grant permission for a development which materially contravenes the WCCDP: *"the Board may decide to grant a permission for development, or any part of a development, under this section even if the proposed development, or part thereof, contravenes materially the development plan relating to any area in which it is proposed to situate the development."*

Tipperary County Council Observation Item 3 (roads):

The Planning Authority notes that the route of the grid connection is shown to be to Dungarvan and that primary haul routes are from Belview (Port) to the site. There are a number of aggregate suppliers shown to be located in County Tipperary and the Planning Authority requests that the impact of same on the road network of County Tipperary is considered in the assessment of the application."

Tipperary County Council Observation Response 3:

The construction of the 110kV grid connection will be carried out in the public road network which will include trenching, construction of joint bays, cable installation and reinstatement works. Works will be carried out under traffic management and phased to minimise disruption along the proposed grid route. The potential impacts associated with the grid connection are summarised in Section 14.5.2 of the EIAR. It is noted that there will be a slight, negative, temporary effect on residents, businesses and road users due to increased noise and vibration resulting from construction activities and increased journey times and delays due to temporary traffic management. However, these effects will be confined to a very short period during the construction phase, prior to the delivery of turbine components, and hence are not predicted to have a significant effect.

Materials for the Proposed Development will be site won where possible from the onsite borrow pit. However, where this is not possible, materials will be sourced from a local authorised quarry located along the N72 road corridor. The potential effects associated with HGV deliveries (which include the importation of fill material) on the surrounding road network have been identified, assessed and included in **EIAR Chapter 14** Sections 14.5.1 and 14.8.1.

It concluded that, while there is likely to be a slight, negative, short-term residual effect on the road network with the mitigation proposed, effects will be minimised and will not be significant.

3.10 UISCE ÉIREANN

Uisce Éireann Observation Item 1:

"Uisce Éireann notes that there appears to be a number of potential locations points within this application where the 110kV underground cable will cross Uisce Éireann's assets.

The applicant's proposals have the potential for the 110kV underground cable to cross below Uisce Éireann assets at multiple location points and based on the details provided, Uisce Éireann have no objection to this part of proposal, provided that the applicant ensures that Uisce Éireann's assets are protected during the construction & operation phases of the development, that adequate separation distances are provided between Uisce Éireann assets and the underground cable and that any development near Uisce Éireann's assets shall be carried out in compliance with Uisce Éireann Standards codes and practices."

Uisce Éireann Observation Response 1:

The Applicant notes that Uisce Éireann has no objection to this part of the proposal, acknowledges this observation and can comply with it as a condition where planning permission is granted.

A utility services search was completed during the design phase of the Project and a general constraints study was completed to optimise placement of the Proposed Development infrastructure. All Uisce Éireann assets are outlined on the planning drawings produced by TLI Group as part of the planning application. The developer will commit to be adequate separation distances from any Uisce Éireann's assets and will be in compliance with Uisce Éireann Standards codes and practice.

Uisce Éireann Observation Item 2:

"Uisce Éireann notes that the applicant's proposals for the 110kV underground cable has the potential to cross above Uisce Éireann assets at a number of locations points. To date no details have been provided to Uisce Éireann for these potential location's points. The applicant needs to advise on where the crossing points of Uisce Éireann assets are by providing details that include the Irish Grid Co-ordinates, the Uisce Éireann Asset Types at all locations and the Uisce Éireann Asset Material/Diameter at each crossing point.

Uisce Éireann cannot support any proposals to cross above our assets without sufficient, clear and detailed information to provide evidence that no impact to Uisce Éireann's assets will arise as a result of the cabling works undertaken.

If the applicant has demonstrated that no other option is feasible but to cross above Uisce Éireann assets, then the applicant must propose appropriate and adequate mitigation measures as part of their design proposal to ensure that:

- a) no additional load is applied to Uisce Éireann assets from above.*
- b) it will be possible to access and easily replace the Uisce Éireann assets in the locations under the 110kV underground cable in the future.*
- c) no impact to Uisce Éireann's assets will arise as a result of the cabling works undertaken.*
- d) agree the detailed design for the crossings above with Uisce Éireann and enter into an associated Build Over Agreement.*

It is therefore wise that Uisce Eireann takes a precautionary approach to any assessment of this kind and respectfully requests Further Clarification to address the following points of concern regarding the Development.

- 1. The applicant shall demonstrate where no other option is feasible but to cross above Uisce Éireann assets when laying the 110kV underground cable at any of the potential location that need to be identified.*
- 2. Where it is demonstrated by the applicant that no other option exists but to cross above Uisce Éireann assets, the applicant shall provide to Uisce Éireann.*
 - a) updated designs demonstrating how their proposals mitigate any impact to Uisce Éireann's assets.*
 - b) updated designs demonstrating no additional load is applied to Uisce Éireann assets from above and*
 - c) proposals demonstrating how it will be made possible for Uisce Éireann to access, maintain and easily replace the Uisce Éireann assets in the locations under the 110kV underground cable in the future."*

Uisce Éireann Observation Response 2:

In the planning application outlined in the TLI Drawings and planning pack, all crossing details have been provided which include trench services under and over Uisce Eireann assets. No Impacts to Uisce Eireann assets are predicted, however the Applicant will engage fully with Uisce Eireann and comply with relevant requirements.

Appropriate and adequate mitigation measures as part of the design proposal have been included in the EIAR and further information can be provided on request.

4 RESPONSE TO THIRD PARTY SUBMISSIONS AND OBSERVATIONS

It is noted that, having reviewed submissions from third parties, common themes have emerged. These have been addressed hereunder under headings rather than individually.

4.1 (WILD IRELAND DEFENCE CLG) PETER SWEETMAN

Received on 03rd August 2023.

Wild Ireland Defence CLG Observation Responses:

Concerns regarding the Natura Impact Statement.

RE: Ecological Clerk of Works (ECoW) is not a mitigation measure

Response

As per the CIEEM, "a competent ECoW can effectively oversee the management of the risks on construction sites associated with managing biodiversity". The role of the ECoW is considered to represent a key element in the delivery of mitigation measures as set out in the Natura Impact Statement for the Proposed Development.

RE: the fact that these measures are set out in the Dyrick Hill Wind Farm Habitat Management Plan (provided as part of the Environmental Impact Assessment Report) shows that these measures (in the Natura Impact Statement) are not complete as per the decision of the Courts of Justice of the European Union.

Response

Actions set out in the HMP Habitat Management Plan (Appendix 6.4 of Chapter 6, EIAR Dyrick Hill Wind Farm, Jennings O'Donovan, 2023) for the Proposed Development form part of the wind farm project. Table 5.5 of the Screening Report for Appropriate Assessment has identified the works to be undertaken at the wind farm site as an element of the Proposed Development with the potential to result in likely significant effects to European Sites via a hydrological pathway. The Natura Impact Statement describes how works at the wind farm site could result in adverse effect to the relevant European Sites. Section 6 of the Natura Impact Statement sets out the mitigation measures required for works at the wind farm site such that the potential for adverse effects to European Sites are avoided. The mitigation measures set out in Section 6 of the Natura Impact Statement are applicable to all activities within the wind farm site associated with the implementation of habitat management actions

throughout the lifetime of the operation phase. It is considered that the implementation of these mitigation measures during the completion of habitat management actions will provide adequately safeguards such that they do not present an adverse risk to the integrity and conservation objectives of European Sites.

RE: CEMP and SWMP if they are relevant to the Appropriate Assessment then that makes the Natura Impact Statement incomplete.

Response

The Natura Impact Statement references the CEMP and the SWMP, which is an appendix of the CEMP. The CEMP has been provided as Appendix 2.1 of the EIAR which is included as part of the same planning application as the NIS. As such all measures of the CEMP and SWMP will be implemented for the project but are not required as part of the NIS to ensure no adverse impact on a European Site.

RE: There is no Appendix 2.1 to this Natura Impact Statement and outlined is not complete

Response

See response outlined above in this section 4.1.

RE: There is no Section 6.7 to 6.9 above and what does wherever applicable mean

Response

Section 6.7 to 6.9 are provided under Section 6 of the Natura Impact Statement.

Wherever applicable means that where the measures set out under Section 6.7 to 6.9 apply to the existing conditions at the haul route locations they will be implemented.

Excavation Dewatering Requirements for the wind farm site 'Any discharges of sediment treated water will meet the requirements of the surface water regulations 2009' ***RE: Is this enough to comply with the habitats directive, we have no knowledge that there has been an AA of it.***

Response

The surface water regulations 2009, as amended, establish legally binding quality objectives for all surface waters and environmental quality standards for pollutants and have been derived in consideration of ecological receptors.

Runoff associated with excavations onsite will comprise primarily of rainwater infiltration, consequently, sedimentation is the primary concern in relation to potential impacts associated with runoff. This did form part of the Appropriate Assessment. As outlined in the NIS, sediment laden runoff from construction areas will be captured in collection drains and will be discharged to land via buffered drainage outfalls that will contain hardcore material of similar composition to the geology of the bedrock at the Site. This mitigation measure will promote the capture and retention of suspended sediment and replicate greenfield rainfall infiltration rates.

RE: There is no Section 67.1 & 6.2 and grid connection route (Section 6.5) in this Natura Impact Statement

Response

It is noted that Section 67.1 is a typographical error and the NIS does contain sections 6.2 and 6.5.

RE: Monitoring is not a mitigation measure

Response

As per responses above, monitoring is requirement to oversee (i.e. watchful and responsible supervision) requirement to establish and record the effective implementation of mitigation measures.

A confirmatory assessment in term of bridge or culvert design will be carried out that will have cognisance to the crossing location including characteristics of water flow at both locations. RE: 'Will be carried out', as it has not been carried out it cannot be assessed, 'relatively near' is that one centimetre or is it one kilometre?

Response

The design of the Proposed Development and the associated mitigation measures set out in the NIS are informed by existing conditions recorded at the Proposed Development site during baseline surveys and are based on best practice design and environment protection. Confirmatory surveys in terms of bridge and culvert design are included to acknowledge that watercourses are not static features of the environment, with channel widths, depths, banksides etc. being subject to change over time as a result of natural and other anthropogenic processes. Notwithstanding the potential for such changes, it is noted that the

suite of mitigation measures set out in the NIS will provide sufficient safeguards to ensure that the bridges and culverts designed for the Proposed Development and to be implemented during the construction phase will not pose a risk of adverse effects to European Sites.

With regard to the "relatively near" it is noted that Figure 9.7 of Volume III of the EIAR shows the location of the watercourse crossing and it can be seen that the source of the watercourse crossed is close to the crossing point. For clarity the distance between the crossing point and the source of the stream is c. 350m.

RE: Who defines what is reasonably practicable?

Response

An experienced qualified construction supervisor will define what is reasonably practicable in line with embedded mitigation measures, best practice guidance, specific mitigation measures outlined in the NIS and any measure stipulated in the planning conditions.

RE: the responsibilities of Inland Fisheries Ireland (IFI) extend to the protection the fisheries not the protection of the Blackwater River (Cork/Waterford) SAC (002170)

Response

The protection of fisheries will inherently serve to protect the Blackwater River SAC given that a number of fish species i.e. Atlantic salmon, sea lamprey, river lamprey and brook lamprey are qualifying interests of the SAC.

RE: The presence of an ECoW is not a mitigation measure, environmental report writing and monitoring is not mitigation

Response

We have addressed this point in this document above this item is related to 2 no. points 1. ECoW is not mitigation; and 2. Environmental report writing and monitoring in not mitigation. Regarding ECoW is not a mitigation measure.

RE: So far as concerns the assessment carried out under article 6(3) of the Habitats Directive, it should be pointed out that it cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned.

Response

The mitigation measures set out in Section 6.7 of the Natura Impact Statement are based on best practice guidelines and established techniques to mitigate against the release and

transport of suspended solids during construction works. These measures are set out in a suite of best practice construction guidelines as referenced in Section 7 of the Natura Impact Statement. With their implementation the Planning Authority can be confident that release and transport of suspended solids will be effectively managed such that it will not pose a risk of adverse effects to European Sites downstream.

RE: We have sort of mitigation for Golden Plover in the suggested distances set out by Goodship & Furness (2022). The contents of this document and its modus have not had an Appropriate Assessment as required under the Habitats Directive. As Scotland is no longer a member of the European Union its opinions have little relevance to the implementation of the Directive.

Response

The Goodship & Furness (2022) report is a document setting out a review of scientific evidence with respect to the sensitivity of a variety of bird species to disturbance. It is representative of best scientific evidence and information in the field of ornithology and relied upon to inform the approach to mitigation measures set out in the Natura Impact Statement. The mitigation measures set out in Section 6.12 and Section 6.15 will provide protection of all special conservation interest bird species of SPAs identified as occurring within the zone of influence of the Proposed Development.

RE: In addition to the above we state that the qualifying interest of the Blackwater Estuary SPA and Dungarvan Harbour SPA.....We note that the only Bird mentioned in the mitigation measures is the Golden Plover the others are ignored.

Response

The screening report for Appropriate Assessment identified the SPAs and special conservation interest bird species of SPAs that occur within the zone of influence of the project. Section 6.12 and Section 6.15 of the NIS provide mitigation measures to avoid adverse effects to these bird species.

RE: Otters – the otter is a species which has a special protection in the Directive and is also a qualifying interest of the Blackwater River SAC. Otters were screened as follows

There are no mitigation measures for the otter in the Natura Impact Statement

Response

Otters are a freshwater dependent species. Table 5.3 of the NIS identifies the conservation objectives attributes and associated targets at risk of being undermined by the proposed development. These all relate to perturbations to water quality. The NIS sets out a range of measures for the protection of surface waters and surface water quality, there is no potential impact to otters other than impacts on water quality.

Wind Farm site earthworks

RE: Management of excavated material will adhere to the measures related to the management of temporary stockpiles as set out in section 6.2 below. (Why are they not here, is it to confuse)?

Response

Section 6.2 has been cross referenced to avoid repetition.

RE: What is semi-permanent

Response

A semi-permanent stockpile will be stored on site for part of the construction period. This material will be used to reinstate elements of the works such as edges of hardstands and narrowing access tracks.

Any surplus spoil remaining at the end of the construction phase will be taken off site and disposed of at a licensed facility.

RE: this is unclear & what does suitable for construction actually mean

'Construction activities will not be carried out during periods of sustained heavy rainfall events, or directly after such events. This will allow sufficient time for work areas to drain excessive surface water loading and discharge rates to be reduced.'

'Following heavy rainfalls, and before construction works recommence, the Site will be inspected to confirm that conditions are suitable for construction activities to recommence.'

Response

For clarity, as indicated in the NIS, construction work areas will be inspected by both the Construction Manager and the ECoW after rainfall events to ensure excess surface water has drained from the construction works areas prior to recommencing construction activities.

RE: "Whenever possible, soil and rock will be re used on the site immediately, thereby reducing the need for double handling, which will also reduce the requirement to stockpile soils. Generally excavated rock will be used immediately for site access track construction Whenever possible stockpiles will be avoided. Where stockpiling is required, it will be stored in the designated temporary spoil stockpile area located to the east of the proposed turbine T09. This location has been selected due to its location on relatively flat ground that is well buffered (in excess of 100m) from any surrounding watercourses or drains and the presence of low value habitats in the form of intensively managed improved agricultural grassland." Whenever possible, generally excavated, whenever possible, where stockpiling is required, whenever possible. The use of these terms proves that the mitigation measures proposed do not fulfil the requirements of the EU Courts of Justice, which we repeat here "must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned".

Response

The fundamental mitigation measure being described in Section 6.2 of the NIS is the chosen location for the stockpiling of material, which is situated in an area of relatively flat ground that is well buffered (in excess of 100m) from any surrounding watercourses or drains in an area of low value habitat in the form of intensively managed improved agricultural grassland. The first three sentences of Section 6.2 from "Where possible, soil and rock.....stockpiles will be avoided" are provided to emphasise that stockpiling of material will be a last resort during the construction of the Proposed Development. It is further noted that the mitigation measures set out in Section 6 of the NIS will provide safeguards for the protection of water quality during any re-use of soil and rock.

The best practice guidance that has informed the mitigation measures and environmental safeguards proposed in this NIS and that will be adhered to throughout the construction, operation and decommissioning of the Proposed Development include:

- The Good Practice Guidance notes proposed by EA/SEPA/EHS:
- PPG 1: Understanding your environmental responsibilities - good environmental practices
- PPG 3: Use and design of oil separators in surface water drainage systems
- GPP 4: Treatment and disposal of wastewater where there is no connection to the public foul sewer
- GPP 5: Works and maintenance in or near water
- PPG 6: Working at construction and demolition sites

- PPG 7: Safe storage - The safe operation of refuelling facilities
- GPP 8: Safe storage and disposal of used oils
- GPP 19: Vehicles: Service and Repair
- GPP 21: Pollution incident response planning
- GPP 22: Dealing with spills
- GPP 26 Safe storage - drums and intermediate bulk containers
- CIRIA Environmental Good Practice on Site.
- CIRIA Control of Water Pollution from Construction Sites. Technical Guidance C648.
- CIRIA SuDS Manual Technical Guidance C697.

Excavation Dewatering Requirements for the wind farm site

RE: If they are drained why will they need to be dewatered?

Response

Dewatering typically refers to temporarily lowering of the groundwater table in the vicinity of excavations to facilitate construction works, draining of subsoils relates primarily to rainwater infiltration of this strata. The NIS has made reference to both to minimise the potential for runoff.

Grid Connection

RE: There is no Section 67.1 & 6.2 and grid connection route (Section 6.5) in this Natura Impact Statement

Response

It is noted that Section 67.1 is a typographical error and should read "Section 6.1".

Excavated material will be temporarily stockpiled adjacent to the section of trench, with appropriate material used as backfill. Excess unsuitable material will be immediately removed and disposed of at a licenced waste disposal facility. RE: Neither measure is clear and concise

Response

For clarity, grid connection cables will be laid within trenches excavated within public roadways. Excavated material will be placed beside the cable trench during the installation process. Where the excavated material is considered suitable, it will be used for

reinstatement purposes. Should any evidence of contamination be observed, this material will be segregated and disposed of under licence to an authorised waste disposal facility.

Watercourse Crossings

RE: 'Will be carried out', as it has not been carried out it cannot be assessed, 'relatively near' is that one centimetre or is it one kilometre?

Response

The design of the Proposed Development and the associated mitigation measures set out in the NIS are informed by existing conditions recorded at the Proposed Development site during baseline surveys and are based on best practice design and environment protection. Confirmatory surveys in terms of bridge and culvert design are included to acknowledge that watercourses are not static features of the environment, with channel widths, depths, banksides etc. being subject to change over time as a result of natural and other anthropogenic processes. Notwithstanding the potential for such changes it is noted that the suite of mitigation measures set out in the NIS will provide sufficient safeguards to ensure that the bridges and culverts designed for the Proposed Development and to be implemented during the construction phase will not pose a risk of adverse effects to European Sites.

With regard to the "relatively near" it is noted that Figure 9.7 of Volume III of the EIAAR shows the location of the watercourse crossing and it can be seen that the source of the watercourse crossed is close to the crossing point. For clarity the distance between the crossing point and the source of the stream is c. 350m.

RE: This is not a mitigation measure

Response

This point sets out the timing for the implementation of the surface water protection mitigation measures. Mitigation measures are discussed in Section 6 of the NIS.

Horizontal Directional Drilling

RE: The Environmental Clerk of Works cannot be authorised to change any mitigation measures.

Response

The drilling fluids will be constantly monitored. Any changes required to the mix will be performed on site by a specialised HDD Contractor upon consultation with the drilling fluid supplier and Environmental Clerk of Works to ensure it complies with embedded mitigation measures, best practice guidance, specific mitigation measures outlined in the NIS and any measure stipulated in the planning conditions. The ECoW will not change any of the mitigation measures outlined in the NIS.

RE: 'constantly monitored' monitoring is not mitigation, it does not prevent it only discloses breeches

Response

Monitoring of drilling fluids is a requirement to monitor pressures to prevent overburden collapse. A series of mitigation measures associated with the potential impacts of HDD works is included in Section 6.6 of the NIS and includes the following:

The following mitigation measures to reduce potential impacts associated with horizontal directional drilling (HDD) will be implemented:

- *Clearbore, which is not toxic to aquatic organisms and is biodegradable will be the drilling fluid used.*
- *Mud mixing will be monitored to suit the ground conditions encountered. The drilling fluids will be constantly monitored, any changes required to the mix will be performed on site by a specialised HDD Contractor upon consultation with the drilling fluid supplier and Environmental Clerk of Works.*
- *Mud testing equipment will be available at all times during drilling operations to monitor key mud parameters.*
- *All equipment will be carefully checked on a daily basis by the Site Supervisor prior to use to ensure plant and machinery is in good working order with no leaks or potential for spillages.*
- *Spill kits, including an appropriate hydrocarbon boom will be available on the site in the event of any unforeseen hydrocarbon spillages and all staff shall be trained in their use.*
- *All plant, materials and wastes will be removed from site following the HDD works.*
- *The launch pit will be reinstated to the original land surface condition and the normal duct trench will continue from this point.*
- *Should any dewatering be required, it will be carried out in accordance with the CEMP which is appended to the EIAR (Jennings O'Donovan, 2023) in Appendix 2.1.*
- *Test pits and boreholes will not be located directly on, or extend through, the proposed alignment, as these weak points may serve as conduits where inadvertent fluid returns*

or frac outs could occur. At least a 3m offset will be provided between the boreholes and pipe alignment.

Release and Transport of Suspended Solids

RE: This is incomplete, there are no designs of the sediment fencing and no drawings of the positions of the sediment fencing.

RE: Is this enough to comply with the habitats directive, we have no knowledge that there has been an AA of it.

RE: So far as concerns the assessment carried out under article 6(3) of the Habitats Directive, it should be pointed out that it cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned.

Response

Sediment fencing designs are provided in the CEMP (**EIAR Appendix 2.1**). The CEMP is referenced in the project description (Section 2) of the NIS and, as such, best practice measures outlined in the CEMP are considered embedded. The location of sediment fencing will be defined prior to the commencement of construction and sufficient fencing will be provided throughout the construction such that the above features are afforded protection through the presence of a sediment fencing barrier between the construction site and watercourse that will intercept surface water runoff from the construction site.

The surface water regulations 2009, as amended, establish legally binding quality objectives for all surface waters and environmental quality standards for pollutants and have been derived in consideration of ecological receptors.

Runoff associated with excavations onsite will comprise primarily of rainwater infiltration, consequently, sedimentation is the primary concern in relation to potential impacts associated with runoff. As outlined in the NIS, sediment laden runoff from construction areas will be captured in collection drains and will be discharged to land via buffered drainage outfalls that will contain hardcore material of similar composition to the geology of the bedrock at the Site. This mitigation measure will promote the capture and retention of suspended sediment and replicate greenfield rainfall infiltration rates.

The mitigation measures set out in Section 6.7 of the NIS are based on best practice guidelines and established techniques to mitigate against the release and transport of

suspended solids during construction works. These measures are set out in a suite of best practice construction guidelines as referenced in Section 7 of the NIS. With their implementation the Planning Authority can be confident that release and transport of suspended solids will be effectively managed such that it will not pose a risk of adverse effects to European Sites downstream.

RE: There are no actual mitigation measures proposed in this section.

Response

Four no. bullet point provided in Section 6.5.3 of the NIS are representative of mitigation measures that will protect surface water quality during works associated with the installation of the proposed greenway route. These mitigation measures include:

- *Excavated road and soil will be stored in an area at least 10m from the crossing structure and watercourse, and preferably down gradient of the watercourse crossing but up-gradient of the excavated trench so that, after rainfall, material in run-off is contained in the trench.*
- *Silt fencing and silt capture structures such as straw bales will be deployed along either side of a watercourse crossing beyond the full width of the pipe, culvert or bridge structure. Silt fencing will be installed so that the wooden posts and attached fence is buried at least 300mm below the surface of road-side vegetation.*
- *Gullies that lead directly to a watercourse either side of a structure are key pathways for run-off conveyance and these will be blocked to ensure that the direction of potential run-off is conveyed to vegetated verges to allow for infiltration and trapping.*
- *A pre-emptive site drainage management plan will be applied to take account of predicted rainfall so that large excavations adjacent to watercourse crossing can be suspended or scaled back when heavy rain is forecast.*

In addition to this, a schedule of mitigation measures for the construction, operation and decommissioning of the Project have been included as Appendix 17.1 of the EIAR which accompanies this application.

Release of Hydrocarbons

RE: The designated refuelling area will contain the following attributes and mitigation measures as a minimum requirement. (It does not exist, there is no design and no map of it so it cannot be assessed.) The designated refuelling area will be bunded to 110%

volume capacity of fuels stored at the site. (How will it be bunded? A detailed spill response plan is provided as part of the CEMP, the CEMP is not part of this NIS.)

Response

The designated refuelling areas will be identified prior to the commencement of construction and will be dependent on construction sequencing. They will be located and designed in accordance with the measures set out under Section 6.8 of the NIS. With the incorporation of these measures into the design and location, the potential for refuelling areas to present a risk of adverse effects to European Sites downstream will be eliminated.

Bunding will be provided by impermeable membranes.

It is noted that the CEMP is provided as **EIAR Appendix 2.1**.

RE: It is absolutely impossible for the multiple spill kits to mitigate against accidental leaks or spillages

Response

Spill kits are not the only measure to mitigate against accidental leaks or spillages. Several mitigation measures are included in the NIS associated with the potential leaks or spills as outlined in Sections 6.6, 6.8 and 6.9.

RELEASE OF HYDROCARBONS

The following mitigation measures will be implemented during all construction and decommissioning phase works for the proposed development to prevent the release and transport of hydrocarbons to receiving surface waters:

- *Refuelling of vehicles will be carried out off site to the greatest practical extent. This refuelling policy will mitigate the potential for impacts by avoidance. Due to the remote location nature of the Site, it is unlikely that implementation of this refuelling policy will be practical in all circumstances. In instances where refuelling of vehicles on Site is unavoidable, a designated and controlled refuelling area will be established at the Site. The designated refuelling area will enable low risk refuelling and storage practices to be carried out during the works. The designated refuelling area will contain the following attributes and mitigation measures as a minimum requirement:*
- *The designated refuelling area will be located a minimum distance of 50m from any surface waters or Site drainage features.*

- *The designated refuelling area will be bunded to 110% volume capacity of fuels stored at the Site.*
- *The bunded area will be drained by an oil interceptor that will be controlled by a pent stock valve that will be opened to discharge storm water from the bund.*
- *Management and maintenance of the oil interceptor and associated drainage will be carried out by a suitably licensed contractor on a regular basis.*
- *Any oil contaminated water will be disposed of at an appropriate oil recovery plant or licensed tip site.*
- *Any minor spillage during this process will be cleaned up immediately.*
- *Vehicles will not be left unattended whilst refuelling.*
- *All machinery will be checked regularly for any leaks or signs of wear and tear.*
- *Containers will be properly secured to prevent unauthorised access and misuse.*
- *An effective spillage procedure will be put in place with all staff properly briefed. Any waste oils or hydraulic fluids will be collected, stored in appropriate containers and disposed of offsite in an appropriate manner.*

Notwithstanding the management of refuelling and fuel storage at the designated refuelling area, the potential risk of hydrocarbon spills from plant and equipment or other general chemical spills at other areas of the Site remains. To mitigate against potential spills at other areas of the Site, the following mitigation measures will be implemented:

- *Oil absorbent booms and spill kits will be available adjacent to all surface water features associated with the Development. The controls will be positioned downstream of each construction area and at principal surface water drainage features. Oil booms deployed will have sufficient absorbency relative to the potential hazard.*
- *Spill kits will also be available at construction areas such as at turbine erection locations, the temporary site compound, on-site substation, spoils storage areas and met mast location etc. Spill kits will contain a minimum of oil absorbent pads, oil absorbent booms, oil absorbent granules, and heavy-duty refuse bags for collection and appropriate disposal of contaminated matter.*
- *Should an accidental spill occur during the construction or operational phase of the Development, such incidents will be addressed immediately. This will include the cessation of works in the area of the spillage until the issue has been resolved.*
- *Spill kits will be kept in each vehicle at the Site and will be readily available to all operators.*

- *No materials, contaminated or otherwise will be left on the Site.*
- *Suitable receptacles for hydrocarbon contaminated materials will also be available at the Site.*
- *A detailed spill response plan is provided as part of the CEMP.*

Implementation of the above mitigation measures will significantly reduce the risk of hydrocarbon contamination being released to the surface water network. Nevertheless, the potential risk cannot be entirely eradicated. Therefore, precautionary measures and emergency response protocols have been prepared and are provided as part of the CEMP.

RE: There are no actual mitigation measures proposed in this section.

Response

Four no. bullet point provided in Section 6.5.3 of the NIS are representative of mitigation measures that will protect surface water quality during works associated with the installation of the proposed greenway route. These mitigation measures include:

- *Excavated road and soil will be stored in an area at least 10m from the crossing structure and watercourse, and preferably down gradient of the watercourse crossing but up-gradient of the excavated trench so that, after rainfall, material in run-off is contained in the trench.*
- *Silt fencing and silt capture structures such as straw bales will be deployed along either side of a watercourse crossing beyond the full width of the pipe, culvert or bridge structure. Silt fencing will be installed so that the wooden posts and attached fence is buried at least 300mm below the surface of road-side vegetation.*
- *Gullies that lead directly to a watercourse either side of a structure are key pathways for run-off conveyance and these will be blocked to ensure that the direction of potential run-off is conveyed to vegetated verges to allow for infiltration and trapping.*
- *A pre-emptive site drainage management plan will be applied to take account of predicted rainfall so that large excavations adjacent to watercourse crossing can be suspended or scaled back when heavy rain is forecast.*

Release of Cementitious Materials

RE: The procurement, transport and use of any cement or concrete will be planned fully in advance and supervised by appropriately qualified personnel at all times. (There are no plans, so it cannot be assessed, irrelevant.)

Response

To clarify, the aim of this measure is to set out a deliberate, organised and managed approach to the procurement, transport and use of cement and concrete. Furthermore, all transport and use of cementitious material will be subject to the mitigation measures set out in Section 6.9 of the NIS which are as follows:

- *The procurement, transport and use of any cement or concrete will be planned fully in advance and supervised by appropriately qualified personnel at all times.*
- *Vehicles transporting cement or concrete to the Site will be visually inspected for signs of excess cementitious material prior to being granted access to the Site. This will prevent the likelihood of cementitious material being accidentally deposited on the Site Access Tracks or elsewhere at the Site.*
- *Drivers of such vehicles will be instructed to ensure that all vehicles are washed down in a controlled environment prior to the departure of the source site, such as at concrete batching plants.*
- *Precast concrete will be used wherever possible. However, the use of pre-cast concrete is not viable option for large structures such as Turbine foundations and so concrete will be delivered to the Site.*
- *Concrete will not be poured during periods of rainfall or if any kind of precipitation is forecast. This policy will limit the potential for freshly poured concrete to adversely impact on surface water runoff.*
- *Raw or uncured waste concrete will be disposed of by removal from the Site.*
- *Washout of concrete trucks shall be strictly confined to the batching facility and shall not be located within the vicinity of watercourses or drainage channels. Only the chutes will be cleaned prior to departure from Site and this will take place at a designated area at the Temporary Site Compound.*
- *Spill kits will be readily available to Site personnel, and any spillages or deposits will be cleaned up as soon as possible and disposed of appropriately.*
- *Pouring of concrete into standing water within excavations will be avoided.*
- *Excavations will be prepared before pouring of concrete by pumping standing water out of excavations to the buffered surface water discharge systems in place.*
- *Any surplus concrete will not be stored or deposited anywhere on Site and will be returned to the source location or disposed of appropriately at a suitably licensed facility.*

- *Any required shuttering installed to contain the concrete during pouring will be fully secured around its perimeter to minimise any potential for leaks.*

4.2 POLICY AND ALIGNMENT WITH DEVELOPMENT PLAN

A number of submissions noted the Development is not located within an area designated as "Open to Consideration".

Response:

Please refer to sections 2.2, 2.5 and 2.7 of this response document.

4.3 PUBLIC CONSULTATION

Some submissions have asserted that the Applicant has not followed appropriate community engagement procedures. With several identifying they have not been "personally consulted" and implying the consultation processes was lacking "meaningful engagement".

Response:

The Applicant would first like to draw attention to various guidance on public consultation which was followed during the EIA process.

- Århus Convention
- Directive 2011/92/EU as amended by Directive 2014/52/EU of 16 April 2014
- Code of Practice for Wind Energy Development in Ireland, Guidelines for Community Engagement (The Department of Communications, Climate Action and Environment 2016)
- 2006 Wind Energy Guidelines
- 2019 Draft Wind Energy Guidelines

Extensive public consultation was undertaken for the Project. Community Liaison Officers were assigned to the Project and made every attempt to contact people in the vicinity of the Proposed Development. It is noted that some of the third-party submissions stating that they had no contact were actively directly consulted by the Community Liaison Officers.

People from the local community were invited by the Community Liaison Officer directly, and by hand delivered leaflets and other communication methods, to engage with the Project via:

- (3) Public Information Days.
- Individual meetings.
- Email and phone contact with the Community Liaison Officer.
- Virtual Information Days.
- The Project Website.

These events were very well attended. It is an individual's right to choose not to attend these events or engage with communication materials.

As per EIA Regulations (The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018) which transpose the requirements of The Revised EIA Directive into the Planning and Development Regulations 2001 (As Amended).), a community report was included with the EIAR in Appendix 1.3. This outlined the active steps taken by the Applicant to engage with and take in to account the views of local communities in the design of the Proposed Development. It also includes documentation of the practical effects of this engagement, i.e. the changes made to the Project as a direct result.

In summary this engagement has included:

- Two online webinars - Public Information Days
 - The online webinars were advertised in the Dungarvan Observer.
 - Online webinar 1 – Date the event was held: 7th April 2022.
 - Online webinar 2- Date the event was held: 21st of July 2022.
- Three in-person Public Information Days
 - These include the following:
 - 1st Public design open evening event - Dungarvan Park Hotel (Advertised in Dungarvan Observer) Date the event was held: 11th August 2022.
 - 2nd Public event - Tooraneena Community Centre (Advertised in Dungarvan Observer) Date the event was held: 7th of December.
 - 3rd Public event - Tooraneena Community Centre (Advertised in Dungarvan Observer) Date the event was held: 1st March 2023.
- Newsletter and community letter distribution in the local area (117 Eircodes).
- Production of project newsletters delivered to local residents, community groups and council members.
- Provision of community liaison officers and sharing of contact information on all materials.
- Public notices displayed and leaflets given out in the Tooraneena area by community liaison officers.
- Letters sent in the post to stakeholders who may have an interest in the Proposed Development.
- A dedicated project website was set up in stage 1 community consultation for the Proposed Development in December 2021. The project website remains active and can be accessed at: <https://www.dyrickhillwindfarm.ie/>.

- National Newspapers have published articles on the Proposed Development, especially the benefits of renewable energy and the provision of jobs to the region. These include the Irish Examiner¹⁶.

The steps taken to engage the community in consultations are over and above those required by the EIA Regulations, the WEGs and the Aarhus Convention.

The Public Community Report (Appendix 1.3 of the EIAR) also outlines the community benefits provided by the Proposed Development and how it will perform as a good neighbour. The report shows that the level of community engagement was above what is required or recommended.

4.4 PROCEDURAL ISSUES

This section responds to a number of specific submissions made in relation to the consenting authority and/or letters to prescribed bodies.

Response:

SID Determination

The 7th Schedule of the Planning and Development Acts note that a wind farm with more than 25 turbines or which has a total output of more than 50MW is classed as SID. A SID determination meeting was held with the Board on 2nd June 2022 to outline the nature of the Proposed Development. Following the conclusion of this meeting the Board determined on 5th April 2023 that the Proposed Development was considered to be SID and all planning applications are required to be made to the Board.

Prescribed Bodies (HSA)

As part of this determination, the Board also provided of a list of prescribed bodies to be notified of the Proposed Development. Letters to prescribed bodies were included in the planning application. However, the applicant acknowledges that there was an error, and a letter was not sent to the HSA.

The HSA was contacted during the scoping process 11th April 2022 and the HSA provided a response on the 13th April 2022. The response can be located in Volume IV - Appendix 1.1 Consultation responses of the EIAR.

¹⁶ <https://www.irishexaminer.com/news/munster/arid-41163916.html> (Accessed 04/04/24)

4.5 **LANDSCAPE AND VISUAL EFFECTS**

This section presents a response to recurring themes pertaining to landscape and visual impacts in the submissions made on the Proposed Development. The responses outlined below addresses the LVIA assessment methodology, photomontages, effects on residential visual amenity and landscape and visual effects on very high sensitivity areas.

Response:

Methodology As outlined in **EIAR Chapter 11: Landscape and Visual Amenity** the assessment methodology used in the LVIA includes clearly documented methods based on the GLVIA3 guidance. This includes consideration of landscape and visual 'sensitivity' balanced with the 'magnitude of change' to determine the significance of effects. Mitigating factors are then taken into consideration to arrive at residual landscape and visual effects. Residual landscape and visual effects are graded upon an 'impact assessment classification of significance' scale, as defined by the EPA (EPA, 2022). The methods and processes used for Landscape and Visual Impact Assessments included in the EIAR LVIA follow a range of standard best practice guidance (with focus on the GLVIA3 as well as the Wind Energy Development Guidelines for Planning Authorities (DoEHLG, 2006).

Residential Visual Amenity

As reported in the EIAR LVIA, the most notable visual impacts occur at local community receptors, which account for all five of the 'Substantial-moderate' visual impact significance classifications and principally relate to their close proximity to the Proposed Development. Nonetheless, in all instances where the proposed turbines are viewed at a close distance, they do not present with any strong sense of overbearing, nor do they appear over-scaled or incongruous in this robust foothill landscape setting that comprises broad landscape features and land uses patterns.

High Landscape Sensitivity Areas.

The LVIA notes in terms of landscape designations, the central Study Area is contained within both the 'Upland' and 'Foothill' landscape types in County Waterford, highlighting the transitional nature of this landscape context. Much of the site and the more elevated parts of the landscape to the west are classified with a 'Most Sensitive' landscape sensitivity classification, whilst the landscape to the east and south is principally contained in a 'Low sensitivity' classification. A small area classified as 'High sensitivity' is also located between the two aforementioned sensitivity classifications above. Whilst some parts of the central Study Area, principally the elevated hilltops and ridges on the western periphery of the central Study Area, are more susceptible to change than the working transitional lands that cloak large parts of the central Study Area, it is not considered that the site and central Study Area

represents a 'highly sensitive' landscape setting. Instead, the central Study Area is heavily influenced by typical working land uses, even those more elevated lands in its western half. This is a robust transitional landscape where typical productive rural landscape values outweigh scenic and naturalistic values that might be deemed rarer and more vulnerable. On balance for the reasons outlined above, the landscape sensitivity of the central Study Area is deemed to be Medium.

Whilst a number of prominent landscape areas and features are located within the wider Study Area, it is principally contained in typical rural lands, the most prominent of which across the entire Study Area is pastoral farmland. Thus, despite the array of landscape features and sensitive visual receptors, for the most part, the landscape of the wider Study Area has typical rural qualities that relate to the subsistence of the rural economy. The wider Study Area is heavily influenced by highly anthropogenic features such as major route corridors, large settlements, quarries and existing wind farm development. This is further represented in the current Waterford County Council Development Plan (WCCDP) by the expansive areas of 'Low sensitivity' landscape that cloak much of the wider Study Area in Waterford.

In relation to the Knockmealdown Mountain Mosaic of Tipperary, please see Section 2.7 above. Aside from the most elevated parts of the Comeragh and Knockmealeadown Mountains, much of the East Munster Way and Nire Valley trails will only afford visibility of the Proposed Development in isolation. Similarly, aside from the summits and rolling ridges within the Knockmealedown Mountains, the Blackwater Way only has limited opportunity to afford views of the proposed, permitted and existing development within the study area'.

Landscape and Visual Amenity, including Landscape Character Type have been identified and assessed in EIAR Chapter 11. Whilst the landscape in the surrounds of the Knockmealdown Mountains is classified as 'Primary' and 'Secondary Amenity Areas' in County Tipperary, the majority of the wider landscape in Tipperary is neither classified as 'Primary' nor 'Secondary Amenity Areas', and instead represents a typical non-distinctive rural landscape context.

4.6 TOURISM

EIAR Chapter 11: Landscape and Visual Amenity addresses the Landscape and Visual (L&V) impact of the Proposed Development. The landscape assessment concluded that the Proposed Development would not give rise to any significant landscape or visual amenity effects (including residential amenity). The EIAR L&V chapter also considered effects upon "views and prospects" included in the WCCDP. The findings demonstrate that the landscape can accommodate the Proposed Development without giving rise to significant effects.

Tourism

The effects of the Proposed Development on tourism have been assessed in **EIAR Chapter 5** (Section 5.5.5). Furthermore, these points have been further addressed in Section 3.5 Fáilte Ireland and Section 3.1 DAU of this response document.

4.7 ECONOMIC INTERESTS

Employment

EIAR Chapter 5 Population & Human Health outlines the Proposed Development's economic benefits to the local economy. During the construction phase, there would be economic effects resulting from the expenditure on items such as Site preparation, Site Access Tracks, purchase and delivery of materials, plant, equipment, and components. Information provided by the Developer from experience at other wind farms indicates that there is expected to be a peak on-site workforce of up to approximately 147 workers.

Local employment will be provided, as well as employment on local, national and international levels both directly and indirectly, throughout the project lifetime, employment will be both created on local, regional, national and international levels. Employees involved the construction of the Proposed Development will most likely use local shops, restaurants and hotels/accommodation. Therefore, overall, there will be a slight, positive impact on economic activity in the Region.

4.8 PROPERTY VALUE

Several observations were made regarding the potential for the Proposed Development to result in property devaluation in the area. However, based on the available published studies, the operation of a wind farm at the Site would not significantly impact on property values in the area.

4.9 BIODIVERSITY/ECOLOGY

A number of submissions were received stating that the Proposed Development was located within part of the SAC and the loss of habitat and/or associated biodiversity and/or protected species. The following sections provide overarching response.

Special Area of Conservation

As set out in the Screening Report for Appropriate Assessment and the NIS that accompany the planning application the proposed haul route and the proposed grid connection route cross the River Finisk section of the Blackwater River SAC.

The implications of the project to the Blackwater River SAC and other European Sites occurring within the zone of influence of the project are set out in the Screening Report for Appropriate Assessment and the NIS. A more detailed response has been included in section 3.1 of this submission.

Screening for AA and NIS Methodology

For clarification, the Turbine delivery route is referred to as the Haul Route widening locations in both the AA and NIS. The haul route widening locations have been included in the AA screening as a potential impact on European sites namely the Blackwater River SAC. The potential impacts have been assessed and are set out in section 5 of the NIS and associated mitigation measures have been included in section 6.

Habitat

Please see the response in section 3.1 referring to Annex 1 habitat onsite.

Ornithology

Please see the response in section 3.1 referring to ornithological concerns onsite.

Bats

Bat activity surveys were completed at the proposed wind farm site during the 2020, 2021 and 2022 bat activity season. A total of four no. bat activity manual transects surveys, and three no. roost surveys were conducted in 2021. Static detectors were placed at proposed turbine locations for three rounds in 2020 and 2021. An at-height static detector was placed on the existing met mast in 2022. The surveys followed the recommendations in 'Bats and Onshore Wind Turbines: Survey, Assessment and Mitigation' (NatureScot 2021).

Further detail on the methods used and results are presented in **EIAR** in **Appendix 6.2**.

Protection methods have been implemented to reduce impact on bat species utilising the site such as the following are outlined in the EIAR:

In **EIAR Chapter 6** (6.6.3.1.5) it outlines the following during the construction phase. *Potential direct effects on bats during the Construction and Decommissioning Phase relate to the direct loss of or disturbance to roost sites. Given that works associated with the proposed wind farm development do not propose to demolish any structures confirmed as bat roosts or identified as having moderate potential to support bat roosts, there will be no potential for direct habitat loss to bats and there roost sites.*

The **EIAR Chapter 6** section (6.7.2.1.2) outlines the Mitigation by design to protect bats.

Turbines will operate in a manner which restricts the rotation of the blades as far as is practicably possible below the manufacturer's specified cut-in speed (SNH 2021). This is usually achieved by feathering the blades during low wind speeds; the angle of the blades is rotated to present the slimmest profile possible towards the wind, ensuring they do not rotate or 'idle' when not generating power. Turbine blades spinning in low wind can kill bats, however bats cannot be killed by feathered blades which are not spinning (Horn et al., 2008). The feathering of turbine blades combined with increased cut-in speeds have been shown to reduce bat fatalities by up to 50% (SNH 2021). As such, the feathering of blades to prevent 'idling' during low wind speeds is proposed for all turbines.

In section 6.7.2.1.2 of **Chapter 6 Biodiversity of the EIAR** outlines the Mitigation by reduction Cut-In Speeds/Curtailment Increasing the cut-in speed above that set by the manufacturer can reduce the potential for bat/turbine collisions. A study by Arnett et al. (2011) showed a 50% decrease in bat fatality can be achieved by increasing the cut-in speed by 1.5 m/s. Species with elevated risk of collision (Leisler's bat, soprano and common pipistrelle) in particular would benefit from increasing the cut-in speed of turbines, as dictated on a case-by case basis depending on the activity levels recorded at each turbine.

Cut-in speeds should be increased during the bat activity season (April-October) or where temperatures are optimal for bat activity to 5.5 m/s from 30 minutes prior to sunset and to 30 minutes after sunrise at turbines where surveillance shows high bat activity levels for High and Medium-Risk species and/or if bat carcasses are recorded. The duration required depends on the level of mitigation required for each individual turbine i.e. a full bat activity season or only spring and autumn (duration will be determined by the first year of surveillance).

Due to the considerable unnecessary down time resulting from the proposed "blanket curtailment" (above) and the advances in smart curtailment a focused curtailment regime is further proposed from the year two of operation.

Cut-in speeds restrictions will be operated according to specific weather conditions:

- *When the air temperature is greater than 7°C (as bat activity does not usually occur below this temperature).*
- *Generally, bat activity peaks at low wind speeds (<5.5m/s). As such, it has been shown that curtailing the operations of wind turbines at low wind speeds can reduce bat mortality dramatically, particularly during late summer and the early autumn months.*

Due to the considerable unnecessary down time resulting from the proposed "blanket curtailment" (above) and the advances in smart curtailment a focused curtailment regime is

further proposed from the year two of operation This will focus on times and dates, corresponding with periods when the highest level of bat activity occur within the Site. This includes the use of the SCADA (Supervisory Control and Data Acquisitions) operating system (or equivalent) to only pause/feather the blades below a specified wind speed and above a specified temperature within specified time periods.

Post-constructions surveys will be undertaken for the first three years of operation to confirm if blanket curtailment restrictions can be amended in line with post-construction activity levels. The post construction surveys will be used to update the current curtailment regime (blanket curtailment) designed around the values for the key weather parameters and other factors that are known to influence collision risk. This will include all of the following:

- Wind speed in m/s (measured at nacelle height)
- Time after sunset
- Month of the year
- Temperature (°C)
- Precipitation (mm/hr)

Otters

Section 3.13.4 of the NIS outlines that no otter holts or couches were observed along the watercourses draining the proposed wind farm site. However, it was noted that the Finisk River provides suitable foraging habitat for otter.

Section 5.12.3 of the NIS outlines the following 'The main pressure affecting this species in Ireland is pollution, particularly from organic pollution resulting in fish kills and accidental deaths as a result of road traffic and fishing gear (NPWS, 2019b). The NPWS also list diffuse and point source pollution of freshwaters as a likely indirect impact to otters through changes in prey abundance. However, the NPWS conclude that these threats are considered to produce local impacts only and are not of significance for the national otter population. Nevertheless, such impacts have the potential to be of local significance in the context of a population supported by an SAC river catchment.'

Mitigation measures have been outlined in section 6 of the NIS to safeguard European Site qualifying features of interest from adverse effects. These relate to potential pollution events such as the release of hydrocarbons and suspended soils.

Freshwater Pearl Mussel

Table 5.4 of the Screening Report for Appropriate Assessment notes that the Proposed Development is "Outside the zone of influence - No element of the project is located within a freshwater pearl mussel sensitive catchment and no element of the project overlaps with or

occurs downstream of the freshwater pearl mussel catchment and target distribution area of this SAC”.

As per the Office of the Planning Regulator (OPR) Guidelines for Screening for Appropriate Assessment (OPR, 2021)¹⁷ a source-pathway-receptor (SPR) model has been used to determine the presence or absence of linkages between the Proposed Development and the freshwater pearl mussel populations of the Blackwater River SAC. Atkinson et al. (2023)¹⁸ which contain published guidelines for the assessment and construction management in freshwater pearl mussel catchments in Ireland. Furthermore, Atkinson et al. (2023)¹⁹ outlines guidelines specifically for the Blackwater River (Cork/Waterford) SAC. These guidelines also recommend the SPR model approach for establishing whether a project is likely to have a significant effect. This guidance also notes that as part of this model *“for an effect to be likely, all three elements of the model (i.e., source-pathway-receptor) must be in place. The absence or removal of one of the elements of the model results in no likelihood for an effect to occur.”*

The site-specific conservation objectives have been published for the Blackwater River SAC. Map 8 of the site-specific conservation objectives shows the freshwater pearl mussel catchments that are the subject of the conservation objectives set out for the SAC. These catchments are situated along the main Blackwater River, two tributaries (Owentaraglin and Allow) and the Licky River. Neither the Finisk River nor the Glenshelane River drain to the above catchments. There are no pathways connecting the Proposed Development to freshwater pearl mussel catchments for which the SAC is designated. Figure 8.1 below shows the location of the Blackwater River SAC freshwater pearl mussel catchments as set out in Map 8 of the site-specific conservation objectives.

¹⁷ OPR (2021). *Appropriate Assessment Screening for Development Management*. OPR Practice Note PN01.

¹⁸ Atkinson, S., Magee, M., Moorkens, E.A. & Heavey, M. (2023). *Guidance on Assessment and Construction Management in Margaritifera Catchments in Ireland*. <https://e-mussels.eu/europe/conservation-guidelines>

¹⁹ Atkinson, S., Magee, M., Moorkens, E.A. & Heavey, M. (2023). *Guidance on Assessment and Construction Management in Margaritifera Catchments in Ireland: Blackwater River (Cork/Waterford) SAC*. <https://e-mussels.eu/articles/guidelines-for-assessing-and-undertaking-plans-or-projects-including-conservation-actions>

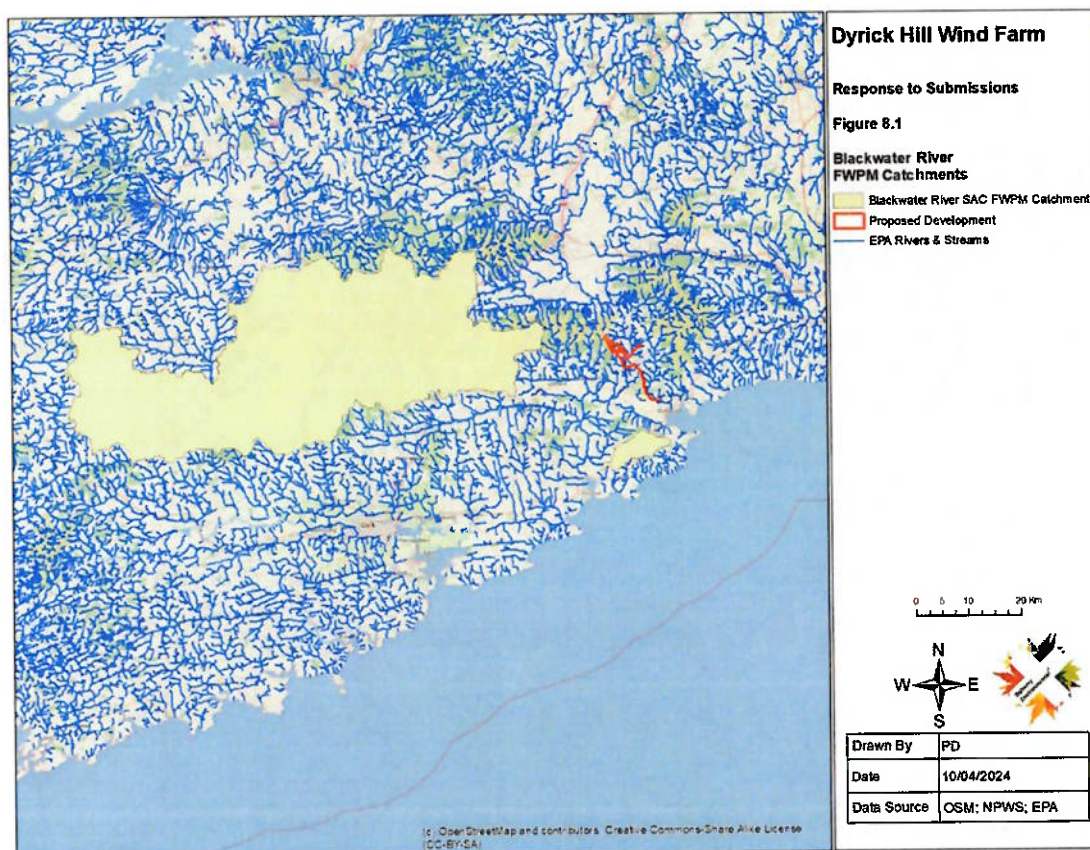


Figure 8.1 shows the location of the Blackwater River SAC freshwater pearl mussel catchments

In addition to the SAC's freshwater pearl mussel catchment, it is noted that other non-designated freshwater pearl mussel catchments occur in Ireland. These have been mapped and are provided as a digital mapping dataset by the NPWS. The extent of the freshwater pearl mussel sensitive areas occurring in the wider area surrounding the Proposed Development is shown on Figure 8.2. As can be seen on Figure 8.2 the Proposed Development does not occur within a freshwater pearl mussel sensitive catchment and there are no pathways connecting the Proposed Development to other non-designated freshwater pearl mussel sensitive catchments.

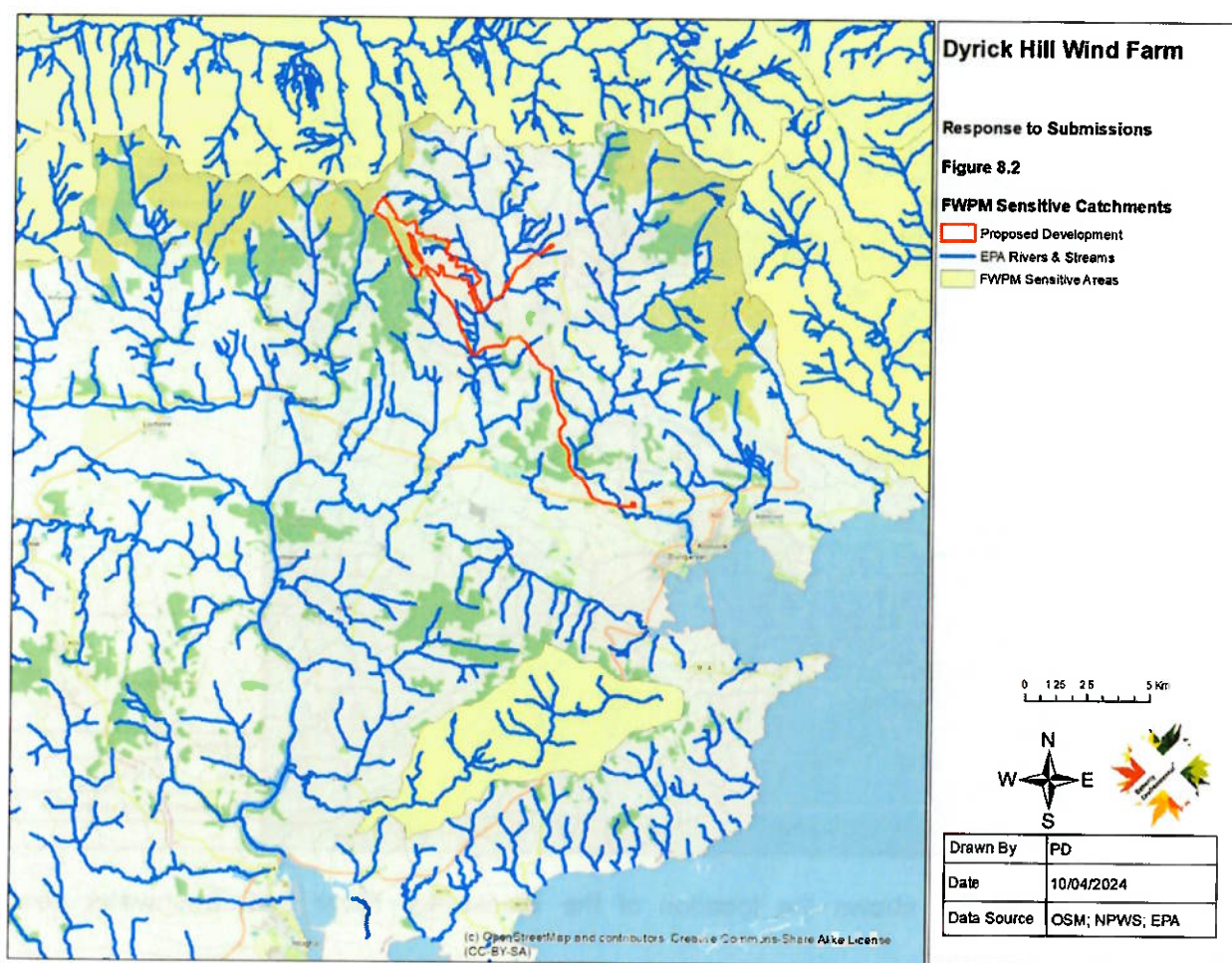


Figure 8.2 the Proposed Development does not occur within a freshwater pearl mussel sensitive catchment

In view of the above and with reference to Atkinson et al. (2023) it can be stated that two of the three elements of the SPR model are absent. The absent elements are the pathway (i.e., there is no pathway connecting the Proposed Development to a freshwater pearl mussel catchment) and the receptor (i.e. there are no freshwater pearl mussel populations occurring downstream of the Proposed Development). It is also noted that the Atkinson et al. (2023) guidelines, as per the guideline's title '*Guidance on Assessment and Construction Management in Margaritifera Catchments in Ireland*', have been prepared for short-term activities and long-term projects that are located within freshwater pearl mussel catchments.

The NSAI (2017)²⁰ prepared a checklist to investigate the potential for short-term activities or long-term projects to result in potentially damaging effects to freshwater pearl mussel populations. As noted by Atkinson et al. (2023) the NSAI checklist provides an aid in the

²⁰ National Standards Authority of Ireland (2017). *Water quality – Guidance standard on monitoring freshwater pearl mussel (Margaritifera margaritifera) populations and their environment* (I.S. EN 16859:2017).

Atkinson, S., Magee, M., Moorkens, E.A. & Heavey, M. (2023). *Guidance on Assessment and Construction Management in Margaritifera Catchments in Ireland: Blackwater River (Cork/Waterford) SAC*. <https://e-mussels.eu/articles/guidelines-for-assessing-and-undertaking-plans-or-projects-including-conservation-actions>

identification of likely significant effects. Notwithstanding the fact, as set out above, that freshwater pearl mussel populations are not located within the zone of influence of the Proposed Development as established by the absence of SPR elements, and as such there is no likelihood for an effect to occur, the checklist is provided below with respect to the Proposed Development.

Table 4.1: Checklist of questions that should be addressed to ensure that the plans or projects do not damage Margaritifera populations: these questions apply to activities in the catchment, where they could affect the river (Source: NSAI, 2017)

Aspect	Question	Response
Mussel population	Will the plan or project result in humans, animals or equipment entering the river?	No
	Has the plan or project the potential to affect the annual reproductive cycle of the mussels?	No
	Will the plan or project increase the risk of pearl fishing, or direct disturbance to mussel beds?	No
Fish hosts	Has the plan or project the potential to affect the upstream or downstream migration of salmonids, including the timing of their movements?	No
	Has the plan or project the potential to affect the distribution or numbers of salmonid fish in the catchment?	No
	Has the plan or project the potential to affect the quality and distribution of salmonid spawning habitat?	No
	Has the plan or project the potential to affect the species composition of fish in the river?	No
Non-native species	Has the plan or project the potential to introduce or encourage the spread of non-native species to the river or catchment?	No
Water quality	Will there be a new outfall or changes to an established outfall entering the river?	No
	Will changes to land management have the potential to increase nutrient loading to the river?	No
	Will the plan or project result in the concentration of nutrients that are currently more dispersed?	No
	Will any aspect of the plan or project potentially affect the temperature regime of the river?	No
	Will the plan or project change the pH of the water?	No
	Will any fertilizers be needed to establish or continue the project?	No

Aspect	Question	Response
	Will the plan or project result in more intensive use of the catchment?	No
	Will the plan or project result in greater wastewater production in the catchment (increased human or animal loading)?	No
	Will any pesticides be needed to establish or continue the project?	No
	Will any potentially toxic substances be used in or generated by the project that would be damaging if they were to enter the river?	Yes – Hydrocarbons Without Mitigation measures
	Has the plan or project the potential to change the water quality of the river in any other way?	No
Flow	Are there planned abstractions, or changes to abstraction levels or compensation flows?	No
	Will any planned changes in land management indirectly result in changes to the flow regime of the river?	No
	Is there any modification to drainage, or dewatering associated with the plan or project?	No
	Will any modification have the potential to change the stability conditions of the river bed?	No
	Has the plan or project the potential to affect the flow regime in the river in any other way?	No
Substrate quality	Has the plan or project the potential to increase fine sediment loading to the river or within the river?	Yes – Without Mitigations measures
	Could works affect the supply of coarse sediment to the river?	No
	Will the plan or project potentially lead to erosion or bare soil in the catchment or directly adjacent to the river?	No
	Is there any new drainage or drainage maintenance associated with the plan or project?	No
	Are any instream works planned (e.g. gravel removal)?	No
	Are any structures planned close to the river, within or across the river (e.g. installing flow deflectors)?	No
	Are there any bank reprofiling or bank engineering plans?	No
Riparian land-use	Has the plan or project the potential to affect the nature of the riparian habitat in the river?	No
	Has the plan or project the potential to affect the nature of the floodplain?	No

Aspect	Question	Response
Vibration and drilling/blasting /noise	Has the plan or project the potential to affect the mussels or their hosts through damage arising from vibration and drilling/blasting /noise?	No

4.10 **HYDROLOGICAL AND HYDROGEOLOGICAL CONCERNS**

This section presents the applicant's response to recurring themes pertaining to hydrology and hydrogeology including:

- *Aquifer vulnerability.*
- *Surface water impacts.*
- *Potential impacts to private wells.*

Response:

A hydrological assessment has been undertaken on the potential effects in terms of hydrology (**EIAR Chapter 9: Hydrology and Hydrogeology**) on the aquifer (see EIAR section 9.2.5 Evaluation of Potential Effects, EIAR Section 9.3.4 Rainfall and Evapotranspiration, EIAR Section 9.3.11 Hydrogeology, EIAR Section 9.3.12 Wells, EIAR Section 9.3.13 Groundwater Vulnerability, EIAR 9.3.20 Receptor sensitivity, EIAR Section 9.4 Potential Effects and Mitigation Measures and EIAR Section 9.5.6 Cumulative Effects).

With full implementation of the mitigation measures included in the EIAR and CEMP, the Proposed Development is '**not likely to have significant effects**'.

4.11 **TRAFFIC AND TRANSPORTATION**

Submissions from members of the public relating to Traffic and Transportation are summarised under the following topics:

- *Increase in traffic volumes generated by the Development.*
- *Haul route constraints.*
- *Temporary works required to facilitate abnormal deliveries.*
- *Sightlines.*

Response:

Traffic and Transportation have been fully assessed and is detailed in **EIAR Chapter 14: Traffic** and further detailed in the **Traffic Management Plan** (EIAR Appendix 2.1,

Management Plan 7). Responses to items observed by TII have also been included in section 3.8 of this submission.

4.12 **HERITAGE**

Submissions from members of the public relating to Heritage are summarised under the following topics:

- *Sites listed on the Record of Monuments and Places that are in or close to the subject site not considered.*
- *Consideration of Declan's Way.*

Response:

- *Sites listed on the Record of Monuments and Places that are in or close to the subject site not considered.*

An assessment on the effects of the Project on sites of cultural and archaeological importance has been included in Chapter 13: Cultural Heritage of the EIAR.

The assessment presents the results of a desktop study of relevant published sources and datasets undertaken in order to identify all recorded and potential archaeological, architectural and other cultural heritage sites/features/areas within the study areas of the Site, grid connection and turbine delivery work areas. The principal sources reviewed for the assessment of the recorded archaeological resource were the Sites and Monuments Record and the Record of Monuments and Places. The Record of Protected Structures and the National Inventory of Architectural Heritage were consulted for assessing the designated architectural heritage resource. Details on the legal and planning frameworks designed to protect these elements of the cultural heritage resource are also provided.

Other sources consulted as part of the assessment included the following:

- *Archaeological Inventory of County Waterford:* This publication presents summary descriptions of the recorded archaeological sites within this area of the county and the relevant entries are provided in **Section 13.3.3**. In addition, the current national online database resources pertaining to same were reviewed on the National Monuments Service's Historical Environment Viewer in February 2023.
- *Heritage Council of Ireland Map Viewer:* This online mapping source (www.heritagemaps.ie) collates various cultural heritage datasets provided by, among others, the National Monuments Service, the National Museum of Ireland, local authorities, the Royal Academy of Ireland and the Office of Public Works and was reviewed in February 2023.

- *Topographical Files of the National Museum of Ireland* – These files, which are archived in the museum premises in Kildare Street, Dublin, were reviewed as part of the assessment. The entries related to the study area are outlined in **Section 13.4.4**.
- *Database of Irish Excavation Reports*: This database contains summary accounts of all archaeological excavations carried out in Ireland (North and South) from 1970 to present. Current data was accessed via www.excavations.ie in February 2023.
- *Literary Sources*: Various published sources were consulted in order to assess the archaeological, historical, architectural heritage and folklore record of the study area.
- *Cartographic Sources*: A review of available historic cartographic sources was undertaken, and these included the 17th-century Down Survey and various map editions published by the Ordnance Survey from the mid-19th century onward. These sources can indicate the presence of past settlement patterns, including features of archaeological and architectural heritage significance that no longer have any surface expression. Relevant extracts from the reviewed cartographic sources are presented in **EIAR Volume III**.
- *Aerial and Satellite imagery*: A review of available imagery of the study area was undertaken in order to review the extent of modern interventions and to ascertain if any traces of unrecorded archaeological sites were visible within the Site. The consulted imagery was sourced from datasets published by the Ordnance Survey of Ireland (OSI), Google Earth and Bing Maps.
- *Irish National Folklore Collection*: A review was undertaken of transcribed material from the National Folklore Collection archive which has been digitised and published online at www.duchas.ie.
- *UNESCO designated World Heritage Sites and Tentative List*: There are two designated World Heritage sites in Ireland, Brú na Bóinne and Sceilg Mhichíl, and a number of other significant examples have been recently included in a 2022 Tentative List²¹ that has been put forward by Ireland for inclusion. None of these designated or tentative sites are located within 20km of the Project.

- *Consideration of Declan's Way.*

The majority of Declans Way follows public roads between Ardmore-Cashel and nearest section is over 5 km to the west of Site in Mt Mellary area (LVIA VP18). No works are proposed in this area nor will it be used as a route for transporting turbine components or

²¹ <https://www.gov.ie/en/press-release/72ef0-ministers-announce-new-world-heritage-tentative-list-for-ireland/#:~:text=World%20Heritage%20Properties%20are%20sites%20of%20cultural%20and%20For,and%20Sceilg%20Mhich%C3%AD%2C%20both%20inscribed%20in%20the%201990s.>

materials. Visual impacts from roadways within the wider landscape are assessed in EIAR Chapter 11: Landscape and Visual Amenity.

4.13 **WIND SPEED**

An observation outlined concerns regarding the wind speed of the proposed project site stating that the *'yearly average wind speed is insufficient'*.

Response:

EIAR Section 2.4 (EIAR Chapter 2: Development Description) highlights the wind resource of the Site. Based on the SEAI Wind maps, and as per the EIAR Chapter 2, the Irish Wind Atlas produced by Sustainable Energy Ireland shows average wind speeds for the country and it shows that wind speed resource at the Site is consistent with a windfarm development (5.2m/sec at 30m, 6.6m/sec at 75m, 7.0m/sec at 100m and 7.9m/sec at 150m/s).

4.14 **ONSHORE WIND DEVELOPMENT**

Various submissions concluded that it is "unnecessary" to locate windfarms onshore and that they would be put to better use offshore or, as one submission mentioned, *"A plan was announced to use the Shannon estuary as a base to supply power based on wind energy to Europe. According to this plan, present technology can produce enough energy to supply the whole country of Ireland, seven times over. This wind farm is miniscule in comparison, so why destroy the scenic area physically, socially, and economically when there are better ways to provide energy"*.

Response:

As per Ireland's Climate Action Plan 2023, Ireland is legally bound to reduce its overall greenhouse gas emissions by 51% by 2030, which requires a target of 6 GW of onshore wind by 2025 and a target of 9 GW of onshore wind by 2030. Whilst offshore wind is targeting 5 GW of capacity by 2030. As Ireland has set out one of the most ambitious reductions targets on overall emissions out of any European country, we simply cannot reach these targets by relying on offshore wind alone. Furthermore, offshore wind requires a lengthy process from conception through planning to construction as well as needing to satisfy 'auctions' which allows for renewable energy projects to compete against one another to win contracts to provide electricity at a certain price.

To date there is only one offshore operational wind farm in Ireland. There are numerous issues surrounding offshore wind development these include the following: judicial reviews,

planning consent delays, concerns over capital investment and infrastructure such as suitable Ports to build offshore wind. Currently there is only one port (Belfast Harbor) on the Isle of Ireland which can facilitate the construction offshore wind farms. In contrast, onshore wind development is a well-established thriving industry in Ireland. In order to help meet Ireland's ambitious target of 6 GW of onshore wind by 2025, developments such as the proposed Dyrick Hill Wind farm are required.

4.15 CUMULATIVE EFFECTS

There were several observations relating to the reasoning why the cumulative effect of the proposed Scart Mountain Windfarm was omitted from the EIAR.

Refer to Response 2 of Section 3.2 in relation to cumulative impact assessments.

4.16 AUTISM AND WIND TURBINES

A particular concern was noted by a local whose children are particularly oversensitive to loud noises, which is otherwise known as 'hyper acusis' and feared that Shadow Flicker and infrasound may negatively inhibit them.

Firstly, it is important to note that any potential turbines involved with this proposed project are equipped to commit to 'zero shadow flicker', which is a system built into the turbine to recognise if the angle of the sun will cast shadow during rotation of said turbine and will deactivate the turbine until the potential for shadow flicker to occur is zero. There will be no exceedances to the guideline limits as the Developer has committed to zero shadow flicker – the turbines will be programmed to cease operating when there is a potential for shadow flicker.

Furthermore, an expert panel undertook a review on behalf of Renewable UK in July 2010 to assess the available scientific evidence relating to infrasound generated by wind turbines. This report was entitled '*Wind Turbine Syndrome – An Independent Review of the State of Knowledge about the Alleged Health Conditions*'. This report followed a previous publication by Dr. Pierpont entitled '*Wind Turbine Syndrome*' in 2009. The 2010 report assesses the impact of low-frequency noise from wind turbines on humans.

The principal conclusions drawn by this expert panel are: "*The scientific and epidemiological methodology and conclusions drawn (in the 2009 book) are fundamentally flawed. The assumptions presented by Dr. Pierpont relating infrasound to 'wind turbine syndrome' are wrong. And Noise from Wind Turbines cannot contribute to the symptoms reported by Dr. Pierpont's respondents by the mechanisms proposed*". 'Infrasound' has been cited as a

cause of potential health impacts as a result of wind turbine development. Infrasound may be described as '*noise occurring at frequencies below that at which sound is normally audible, that is, less than about 20 Hz*', due to the significantly reduced sensitivity of the ear at such frequencies. In this frequency range, for sound to be perceptible, it must be at very high amplitude, and it is generally considered that when such sounds are perceptible then they can cause considerable annoyance. However, wind turbines do not produce infrasound at amplitudes capable of causing annoyance as outlined below.

Research was published in 2020 by the Finish Government aimed at assessing whether wind turbine infrasound has harmful effects on human health. The study concluded that there is lack of scientific evidence on the potential association.

The UK Department of Trade and Industry study, 'The Measurement of Low Frequency Noise at Three UK Windfarms', found that: "*infrasound noise emissions from wind turbines are significantly below the recognised threshold of perception for acoustic energy within this frequency range. Even assuming that the most sensitive members of the population have a hearing threshold which is 12 dB lower than the median hearing threshold, measured infrasound levels are well below this criterion.*"

The EirGrid document '*EMF & You: Information about Electric & Magnetic Fields and the electricity transmission system in Ireland*' (EirGrid, 2014) provides information on studies which have been carried out on the health impact of electromagnetic fields (EMF). This report notes that since 1979, many scientific studies have been carried out on the possible effects of EMF on people. Agencies include the World Health Organisation (2006), the National Radiological Protection Board of Great Britain (2004), and the International Agency for Research on Cancer (IARC) (2002). The EirGrid (2014) report concludes that exposure to extremely low frequency (ELF)-EMF from power lines or other electrical sources is not a cause of any long-term adverse effects on human, plant, or animal health.

A 2019 EirGrid report titled '*The Electricity Grid and Your Health*' states that: "The consensus from health and regulatory authorities is that extremely low frequency EMFs do not present a health risk."

5 CONCLUSION

The Proposed Development will contribute to supplying the demand for renewable energy which, in the context of the pressing climate emergency, is an urgent Irish national priority that must be given significant weight considering the wealth of supporting national and international policy.

Having regard to the energy targets set out in the Climate Action Plan 2024, The Climate Action Act, and local and regional planning policy presented and assessed within this response, it is imperative that renewable energy developments which are acceptable in planning policy terms, such as the Proposed Development, are given consent.

The development process adopted by the Applicant has represented a best practice approach to a renewable energy scheme design, minimising the potential impact through multiple design iterations and modifications to minimise the impact on the receiving environment, and ensuring compliance with the suite of planning policies and objectives of the International, National and Regional Policies. Environmental Impacts have been considered within the EIAR and, through the process of assessment, embedded mitigation, and additional proposed mitigation outlined in the EIAR, NIS, CEMP and Habitat Enhancement Plan, it has been shown that the Proposed Development can be constructed and operated without significant effects arising, demonstrating the acceptability of the proposal.

Having regard to the objections raised, the Applicant respectfully submits responses to the objections/submissions raised on invitation of the Bord.

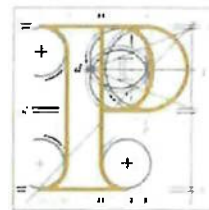
Planning permission should be granted for this development for all the reasons set out above.

APPENDIX A

INVITATION TO SUBMIT A RESPONSE TO OBSERVATIONS

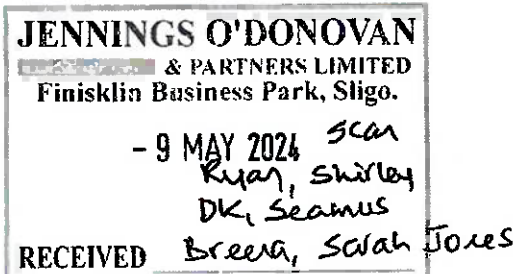
Our Case Number: ABP-317265-23

Your Reference: Dyrick Hill Wind Farm Limited



**An
Bord
Pleanála**

Jennings O'Donovan & Partners
Finisklin Business Park
Finisklin
Sligo
Co. Sligo
F91 RHH9



Date: 07 May 2024

Re: Construction of Dyrick Hill Windfarm comprising 12 no. wind turbines and related works.
Townlands of Ballymacmague North, Ballymacmague South, Ballynaguilkee Lower, Ballynaguilkee Upper, Broemountain, Carrigaun (Mansfield) and others, Co. Waterford.

Dear Sir / Madam,

I have been asked by An Bord Pleanála to refer further to the above mentioned proposed development which is before the Board for consideration.

The Board hereby considers it appropriate to invite you to make a submission on the observations received in relation to the application. Please be advised that any response to the Board's invitation should not contain any additional reports or supplementary reports and should be confined to the issues raised in the observations received by the Board. Any submission in relation to the above must be received by the Board within 2 weeks from the date of this letter (i.e. not later than **21st May 2024**)

If you have any queries in the meantime, please contact the undersigned officer of the Board or email sids@pleanala.ie quoting the above mentioned An Bord Pleanála reference number in any correspondence with the Board.

Yours faithfully,


Raymond Muwaniri
Executive Officer
Direct Line: 01-8737125

VA12

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